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The Gift Must Always Move

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WEEDS AND WILDFLOWERS

by George Mackley

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FOXGLOVES

COW PARSLEY

MOST OF MACKLEY'S WOODCUTS are small, sentimental views of old watermills, canals, and cottages in the English countryside, but the 17 he cut to illustrate Armida Colt's book, **Weeds and Wildflowers**, are something special. Ms. Colt recalls that when her Two-Horse Press (London) first published them in an edition of 250 in 1965, "they were greeted with astonishment that a craftsman of such calibre should still exist in this machine age."

Mackley was born in Tonbridge, Kent, in 1900, and he retired there in 1960. In between, he had a quiet career as a teacher and headmaster at various small English country schools. I don't know if he's still alive – I've been unable to contact him.

Plant portraits carved into plant flesh and printed on sheets of plant fiber: an elegant union of medium and content.

–Robert Horvitz

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COVER

Kwakiutl chief setting a gift in motion. The Kwakiutl lived on the northern shores of Queen Charlotte Strait near what is now Vancouver, B.C. The chief's gift is a copper, a sort of counter of wealth bestowed during the gargantuan feasts called potlatches. Ceremonial gift exchange of the sort considered by poet Lewis Hyde in his essay, which begins on page ten of this issue, can be solemn business. The chief wears no Christmas morning smile. His wooden likeness is in the Jacobsen Collection, Museum für Volkerkunde, Berlin. The photograph is from Claude Lévi-Strauss' **La Voie des Masques**, *Editions Albert Skira, 1975, and was found for us by anthropologist Margaret MacLean. –Stephanie Mills*

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WHOLE SYSTEMS RULES OF THUMB

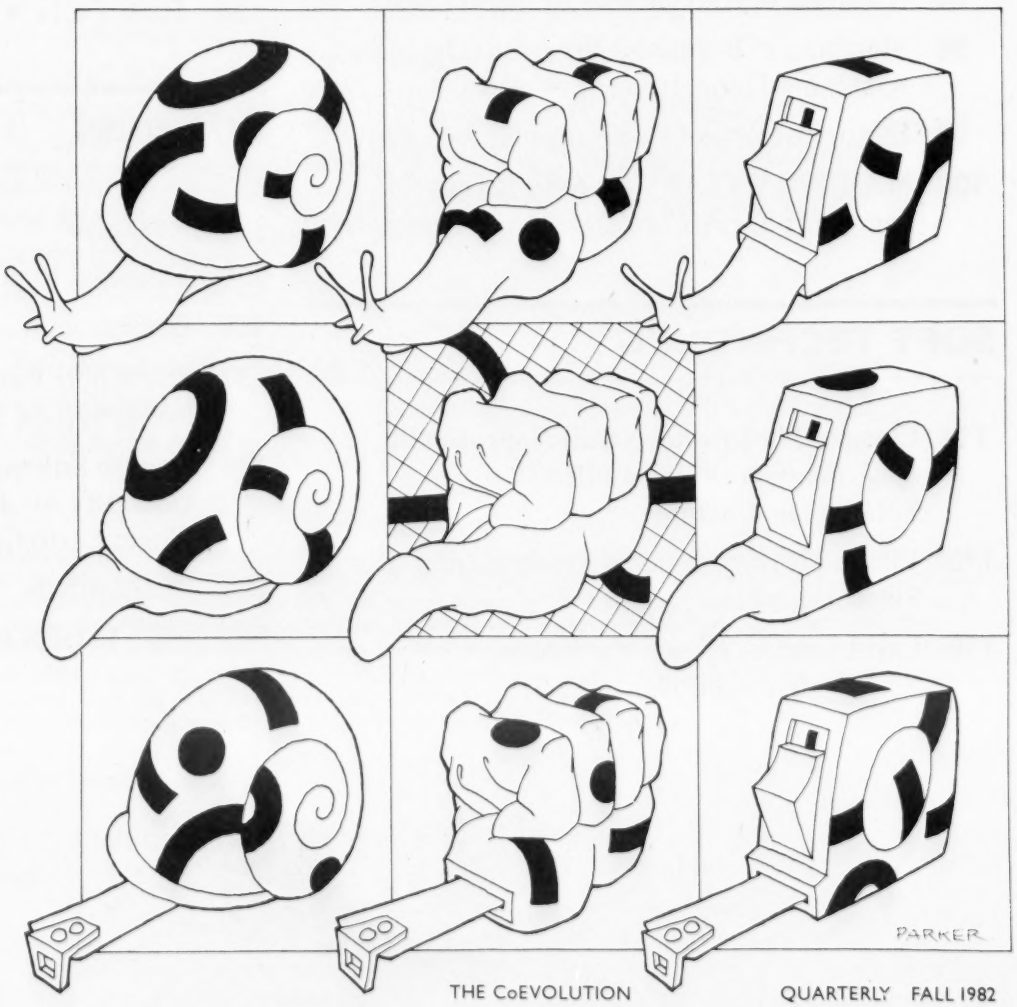
by Tom Parker

WHY DO I ASK SO MANY QUESTIONS? Some people get annoyed if you grill them too much about what they do and what they know, like what it sounds like when someone stutters in Japanese or how much extra-terrestrial material falls to Earth. But just about the time you ask a urologist how much urine this country produces, and guests at the dinner table start to get a little fidgety, you get an answer like, "I figure Americans urinate about a thousand gallons a second."

You just know that some people have great stuff packed away in their heads.

Rules of Thumb usually make the most satisfying answers. They are neatly packaged, a kind of homemade recipe that falls somewhere between an unwieldy mathematical formula and an out-and-out guess. Rules of Thumb give you ballpark figures. They provide a quick look at the subtleties of the topic at hand. They give you a feel for a subject.

So I sent letters to everyone I could think of, and I asked them to send me their Rules of Thumb. Old folks responded with the most enthusiasm; good friends, the worst. Experts and editors fell somewhere in between. Some people took days to come up with "the rain in Spain falls mainly on the plain." Others spouted their "best five" off the tops of their heads. More than anything, the response was unpredictable. A local guitar maker's favorite rule had



The Rules of Thumb published here are from a collection in progress by Tom Parker. He hopes to gather more of them. So you are invited to poke your rule of thumb into the pie. Eventually, when the collection is published, your pay for a winning submission will be subsequent immortality. Send a card bearing useful words to The Alpine Planetarium, Tom Parker, Box 198 RD 1, Alpine, NY 14805.

—Stephanie Mills

to do with stream morphology. A wind power expert from Cornell sent one on digging graves.

I'm not sure why they're called Rules of Thumb. Someone told me the term came from an old English law that said a man could legally beat his wife and kids with a stick that was no thicker than his thumb.

I do know a Rule of Thumb isn't a joke or a ditty or a Murphy's Law. It usually isn't a traditional expression like a saying or an adage. Most of all, a Rule of Thumb is not always right. It is simply a personal formula for making an educated guess. A Rule of Thumb is a tool; it is what you can probably get away with.

I'd say the following are Rules of Thumb. Some probably have debatable qualifications. Others are of dubious value. Most were picked from my return mail. I'm adding them to a cumulative file, a Rule of Thumb archive.

It will be interesting to see how they stack up as a body of information. I've often wondered what I would do if I were suddenly dumped on an island or thrown back in time. Could I start anything on my own? Could I do any flashy tricks? How would I do with fifty thousand nicely catalogued Rules of Thumb in a pocket-sized volume? The ancients might not be surprised that ten tons of extra-terrestrial material fall to Earth each day. And they probably wouldn't care that the Japanese don't stutter. But wouldn't they love to know that the human body gives off as much heat as a 150-watt light bulb?

When flying a sailplane cross-country, thermals are roughly five times as far apart as they are high.

—John Campbell, physicist

Double the height of a three-year-old to determine his or her adult height.

—Mary Deiner, housewife

Baby mammals should be kept at 90° to 95°F. until their eyes open, then lower the temperature five degrees a week to room temperature.

—Carl Grummich, veterinarian

A computer system capable of record keeping and accounting for a business should cost about one to two percent of the company's annual sales.

—*Boardroom Reports*

Paintings in galleries sell for twice the price they command at auction.

—Richard Merkin, painter

For university fund-raising, figure: one-third from ten big contributors, one-third from 100 moderate contributors, and one-third from everyone else.

—Wayne Hirschkorn, university fund-raiser

One skilled person can properly manage 500 bee colonies.

—Cornell University

During a job interview, never talk for more than 60 seconds at a time.

—Anonymous employer

Computers: Every two years you can get twice the performance for half the price.

—Dave McKeown, computer analyst

You have a 50 percent chance of surviving overboard in 50 degree water for 50 minutes.

—U.S. Coast Guard

To get your bees through the winter, leave ten pounds of honey for each month of winter.

—Larry Meyer, beekeeper

Rental property should sell for 100 times the monthly rental income. —Tom Wolfe, writer

When digging a grave, wheel away 17 wheelbarrows full of dirt and pile the remainder by the hole. Just enough dirt will be left to backfill.

–Randy Lacey, wind engineer

The inside of a pigeon loft should be low enough that a pigeon can't fly over your head and small enough that you can touch all four walls while standing in the middle.

–Dr. Herbert R. Axelrod, retired pigeon racer

Ten people will raise the temperature of a room one degree per hour. –John Brink, maintenance supervisor, Masonic Temple

To give an English language lecture in Bulgaria (or Russia), write 20 minutes of material for a 60-minute speech to allow time for translation.

–Robert Horvitz, artist

One-quarter of a year of a foreign language at the college level is equal to one year at the high-school level.

–Dave Russell, teacher

When spit freezes before it hits the ground, it's 40 degrees below zero.

–Jeanie MacDonough, social scientist

Air masses travel about 750 miles per day (slower in summer, faster in winter).

–Eric Sloane, artist, writer

Any new product should have at least three advantages over the competition. In addition to the product characteristics themselves, consider service, price, credit terms, and dealer markups.

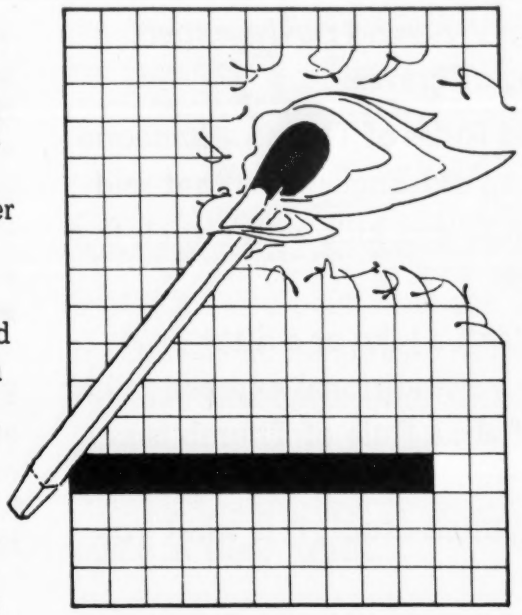
–Karl H. Vesper, consultant

Bicycling: If your legs are getting sore, shift down one gear. If you're getting out of breath, shift up one gear.

–John S. Allen, author, *The Complete Book of Bicycle Commuting*

For a first crack at sizing a motor for a pump, figure five hp per 100 feet of head per 100 gallons per minute.

–John H. Parker, engineer



One BTU is roughly equal to the amount of heat energy given off by completely burning one wooden kitchen match.

–Robert G. Flower, engineer

The distance that a river, under normal conditions, will run straight is never greater than ten times its width.

–Doug Knowles, guitar maker

Allow 2.5 square feet of firebox per 1000 square feet of heating space when buying a woodstove.

–Dan Hoffman, politician

You can hype a book to 250,000 copies. The rest depends on word of mouth.

–John Gill, publisher

The average temperature ten feet below the ground is roughly equal to the mean average temperature of the air at that location. –Roger Rawlings, *New Shelter*

Each person contaminates a hot tub with two to three pints of perspiration per hour.

–*Boardroom Reports*

A frisbee will crack and break when you can see your breath.

–Grady Wells, editor

You can estimate the approximate number of calories it takes to maintain your weight by multiplying your current weight by 15. To lose or gain, alter by 20 percent in the desired direction.

–F. Jill Charboneau, editor

Twenty-five brush strokes per day is considered optimal for best distribution of the natural oils in the hair. More causes damage.

–Dr. Jonathan Zizmor, author, *Super Hair*

When exposing film on a clear day with the sun at your back, set the aperture at f16 and the shutter speed to the ASA of the film.

–Jon Reis, photographer

When setting up a gravity-feed water system, figure one-half pound pressure for each foot of drop. –Bob Flynn, plumber

Rule of Outdoor Construction: When the raindrops are hitting the windshield too fast to count, it's time to knock off work.

–Gene Beitel, contractor

After age 30, a highly qualified professional person can expect to earn at least his or her age in salary (30 years old = $30,000).

–Karen E. O'Neil, consultant

After cracking your knuckles, it takes about 30 minutes for the vaporized joint fluid to go back into solution – which must occur before you can crack them again. –Jim Crissman, veterinary pathologist

One square foot of south-facing glass with night insulation equals one gallon of oil a year.

–Tom Wilson, energy consultant

Spring moves up in altitude 1000 feet per week.

–Annette Arthur, gardener

When pruning trees, paint all wounds larger than a nickel.

–Renard Heim, nurseryman

To care for new woodwork, oil with linseed oil once a day for a week, once a week for a month, once a month for a year, and once a year from then on.

–Marilyn Rider, teacher

Building renovation saves only 10 to 15 percent of the cost of new construction.

–*Boardroom Reports*

You're doing okay if you get half an animal's live weight in usable meat.

–U.S. Department of Agriculture

In Africa, allow one week to hitchhike 1000 kilometers.
—Henning Pape, traveler

American, West German, and British air forces expect to have 60 percent of their aircraft operational at any given time.
—*New York Times*

If a speech takes 15 minutes in a dry run, expect the actual presentation to take one-third longer. —*Boardroom Reports*

Your thumb and index finger will encircle four modest servings of uncooked spaghetti.
—James Colby, student

If a choking person can verbally request the Heimlich Maneuver, he or she doesn't need it.
—James Macmillan, M.D.

A consultant should charge an hourly rate about three times the salary he'd expect to receive for comparable work on a full-time, Blue-Cross-and-benefits basis. Charge more if you can get it. —John Schubert, editor, *Bicycling*

A magazine or newspaper needs to be about half ads to survive financially.
—John Schubert, editor, *Bicycling*

As traffic gets heavier and heavier and slower and slower, it will slow down to the speed which allows the most cars to use the road at once – and that's 22 mph. —John Schubert, editor, *Bicycling*

One ostrich egg will serve 24 people for brunch.
—*Joy of Cooking*

If cookware is hot to the touch after 15 seconds in a microwave oven, it shouldn't be used for microwave cooking.
—*Joy of Cooking*

When entertaining, space your dinners on 30-inch centers.
—*Joy of Cooking*

When generating power on a large scale, no more than 15 percent should come from any one source. Things get screwed up when more than 15 percent is out of service.
—Joel Garreau, author

You need one horsepower of drive motor for every inch of snowblower width.
—Rich vonWellshiem, snow removal specialist, Cornell

If you see one mouse in your house, you probably have a dozen. —C.A. Lacey, Town Historian, Richford, NY

Three tofu buckets (about five gallons) of chopped raw vegetables is enough to serve 100 people.
—Christiann Dean, sociologist

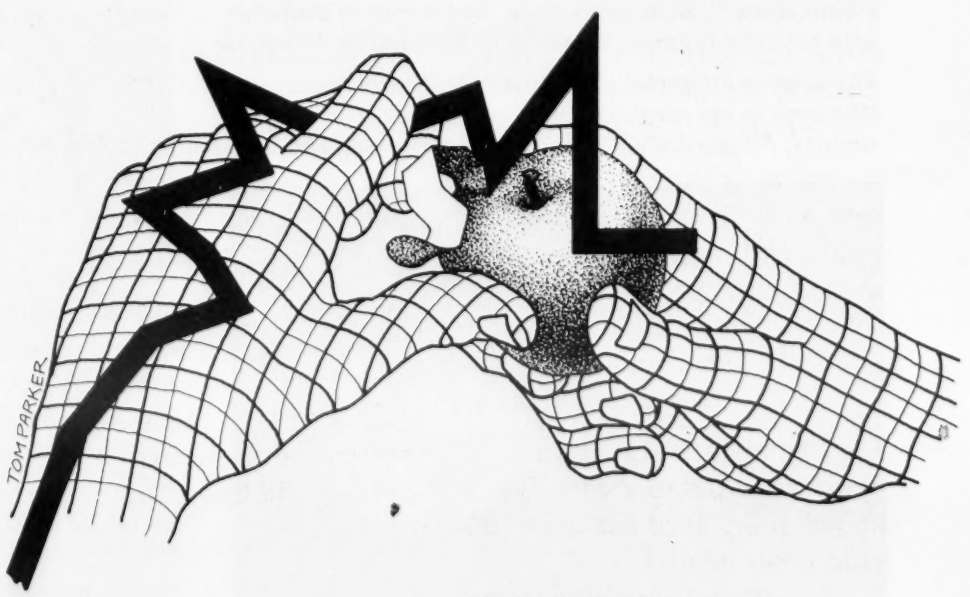
A resting human body gives off as much heat as a 150-watt lightbulb. You can use this fact to keep the temperature in a controlled-temperature greenhouse very constant even as you come and go. Just turn the light out whenever you go in.
—John Schubert, editor, *Bicycling*

You can lift, for a short time, twice your weight. You can carry and move your own weight. For a long distance, you can carry, uncomfortably, half your weight, or comfortably, one-fourth your weight. —J. Baldwin

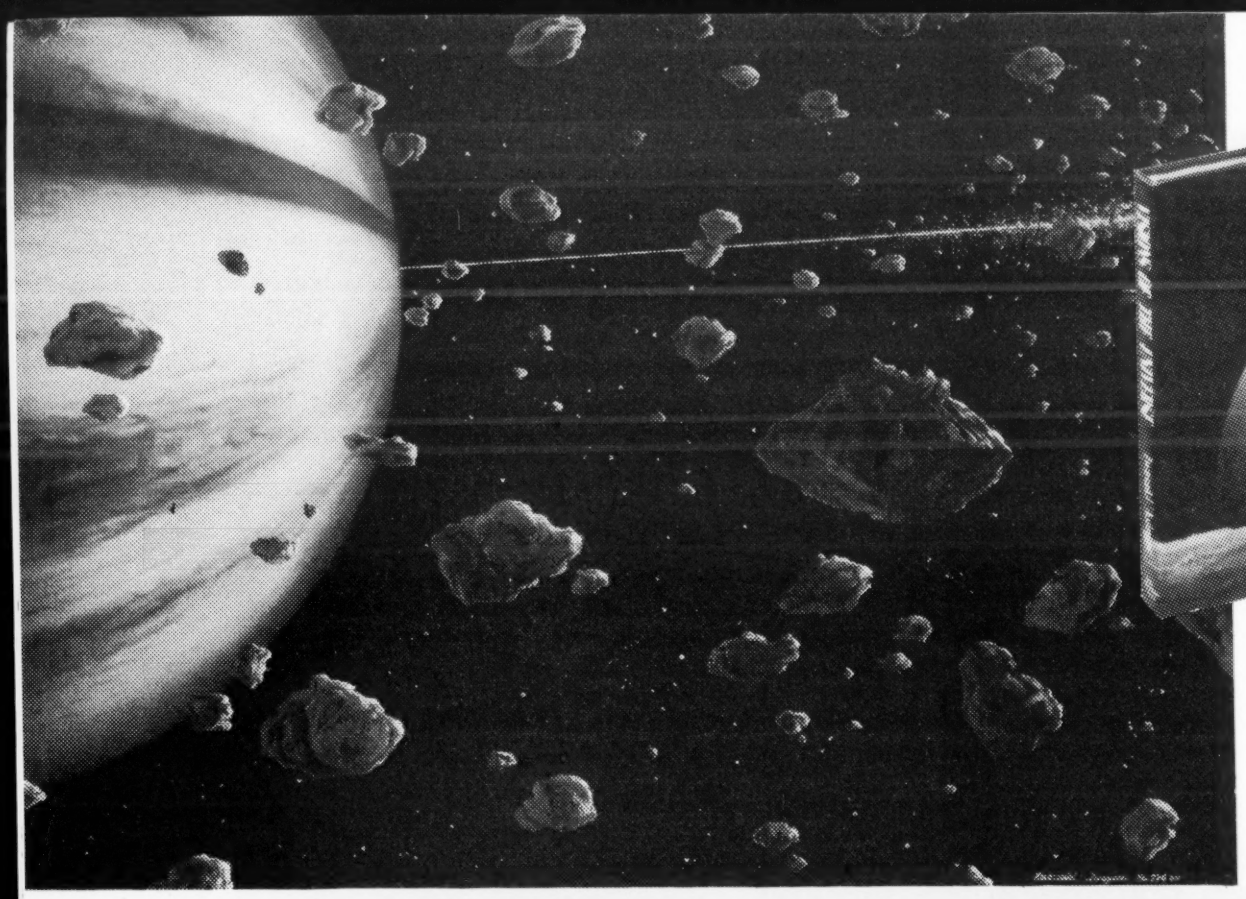
It takes three tries to get a new idea right, especially if a physical prototype is involved: In the initial try the shortcomings are revealed. The second try cleans up the obvious shortcomings and makes clear what "really should be done." The third one is *it*. —J. Baldwin

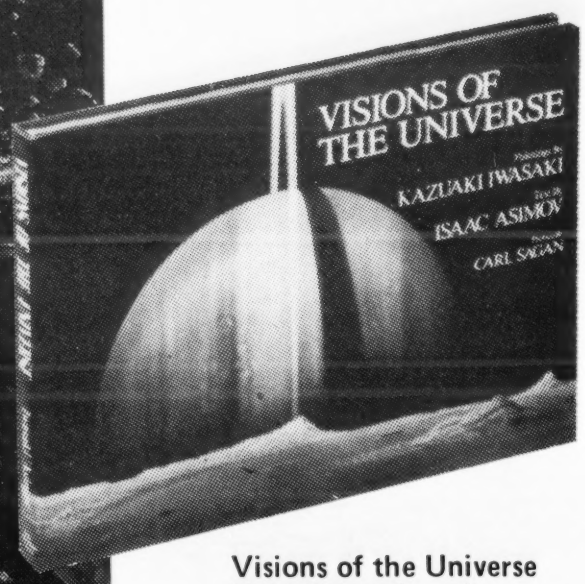
If you're out passing another car on a two-lane road and are unexpectedly confronted with a car coming towards you, you have the choice to accelerate or brake. In *all* cars the brakes are a *lot* more powerful than the engine. Brake. The only time this will not necessarily hold true is if another car is out there right behind you also passing. In that case, your luck has run out anyway. It is a good idea to train yourself with such rules of thumb so that in an emergency, especially if you're a bit tired, you will not have to conjure up a plan of action from all possible plans. You will only have to choose between one or the other, or "cancel," as in the above example, where you would cancel the nearly automatic "brake" rule. This prevents fatal hemming and hawing.
—J. Baldwin ■

To be continued



A Rule of Thumb is a tool.





Visions of the Universe
Kazuaki Iwasaki and
Isaac Asimov
1981; 97 pp.
$29.95 postpaid from:
The Cosmos Store
2409 Honolulu Avenue
Suite 3
Montrose, CA 91020

Visions of the Universe

Gorgeous, big color paintings, finely detailed, finely researched, of visual wonders in the extended neighborhood. Sunspots and solar prominences close up, early Earth, the hidden face of the Moon, Jupiter's Red Spot, Neptune, a binary star, a black hole, etc. — 46 plausible postcards each 9½" by 13½". The artist, meticulous Japanese. —*Stewart Brand*

In the painting, we are placed inside the ring. We see ourselves surrounded by boulders (we are not certain yet of what the average size is) which seem to be smaller and more thickly concentrated as we look off into the distance at the right until they fade into an apparently solid ring (seen edge-on as a white line) circling Saturn.

The material of the ring is so close to Saturn that the planet's tidal effects kept it from coalescing into a satellite. We now know there is similar debris in the neighborhood of Jupiter and Uranus, but only about Saturn is there so much that gorgeous rings visible from afar are formed.

Five Kingdoms

Beautifully done, as is usual from Lynn Margulis, originator of the symbiotic theory of cell evolution, co-originator of the Gaia Hypothesis concerning Earth's atmospheric evolution. You may remember that there used to be three kingdoms of life — plants, animals, and fungi. The idea of five kingdoms was initiated 20-some years ago by R.H. Whittaker, and microbiologist Margulis has been in the thick of work on the two "new" ones — actually they are far, far the oldest and still dominate the biosphere — the prokaryotic (nonnucleus) single-celled micro-organisms and the eukaryotic (nucleus) ones. If you think ostriches and giraffes, geckoes and Venus's flytraps are wondrous, wait till you meet the Bacillus, whose death produces a single airborne spore capable of surviving years of unfavorable conditions before rebirth as a new bacillus, and such foraminifera as the Nummulites ("coin stone"), with shells up to four inches in diameter, who built the Egyptian pyramids of nummulitic limestone.

The book is insightfully organized, brilliantly illustrated. Welcome to the revolutionary kingdoms of Monera, Protoctista, Fungi, Animalia, and Plantae. —*Stewart Brand*

Five Kingdoms
(An Illustrated Guide to
the Phyla of
Life on Earth)
Lynn Margulis and
Karlene V. Schwartz
1982; 347 pp.

$24.95 postpaid from:
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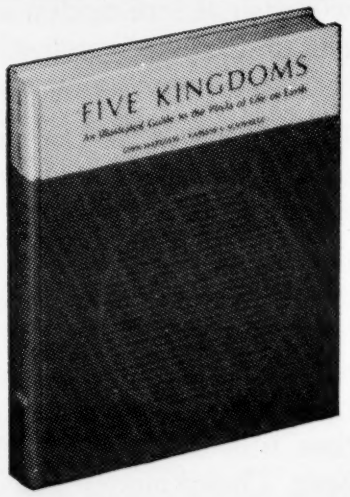
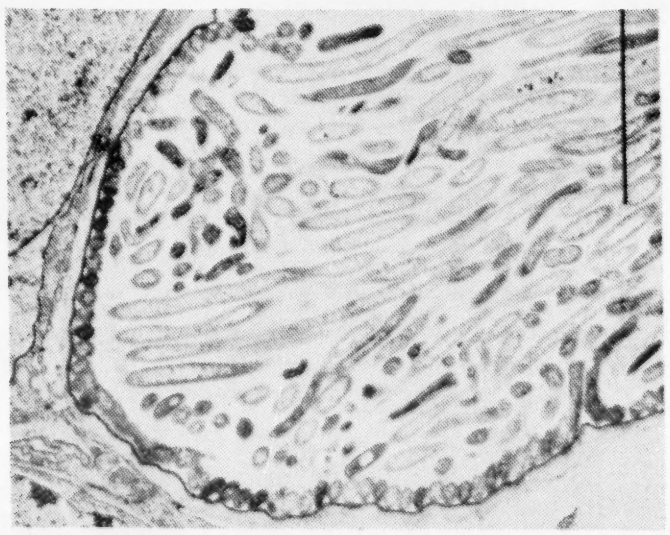




An intact bacterial community from a pocket in the hindgut wall of the Sonoran desert termite Pterotermes occidentis **(Phylum A-27). More than 10 billion bacteria per milliliter have been counted in these hindgut communities. Many are of unknown species.**

Scratching the Beat Surface

In order to think about and know your own time, notice the disciplines of art. Learn how artists themselves learn. Observe the workings of artistic intellect and spirit. This three-part volume of excellence by Michael McClure, one of America's best poets and playwrights, affords the opportunity to do that.

Part one, "Scratching the Beat Surface," is based on a series of lectures describing the beginnings and shapings of his generation's literature. Deep roots of high culture. Now-classic poems by Ginsberg, Snyder, Olson, Blackburn, Creeley, and McClure himself are here embedded in prose commentary on the Beat Zeitgeist. There's a description of the reading at which **Howl** *was first heard, with all its epochal significance. Hard to believe it happened over a quarter of a century ago.*

Writing artists must read. McClure reads revolutionary biology. Part two, "Wolf Net," is a set of reflections from life science. Here are the ideas of Odum, Haeckel, Whitehead, Crick, and Margalef, savored, digested, and crackling at the writer's synapses. This finely wrought and thought prose hymns creation from the molecular level to the mental. In this work, McClure shows Batesonian breadth of knowledge and understanding: he writes intuitively of mind in nature.

The third part, "Hail to Thee Who Play!" is a new poem, lyrical, exclamatory, and quite wonderful, as are Larry Keenan's photographs which illuminate this honorably well-made North Point Press book. Revelatory stuff.

—Stephanie Mills

•

The biological event goes back to the neuron screen upon which senses register. The screen has been so filled with spontaneous and automatic cries, conjoined with the unpremeditatable body movements, that there is no spot for the registration of associations, anxieties, longings, aspirations, hopes, daydreams, or anything but the body itself AS THE UNIVERSE. It is a move through the veil — perhaps not through the veil of Maya but certainly that of the milieu.

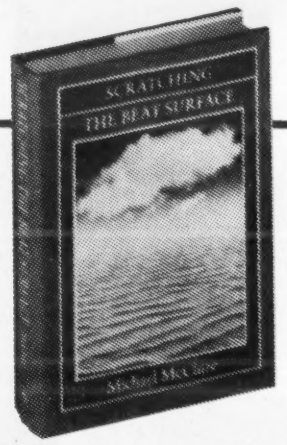
•

CAN THE HUMAN TYPE know more mammal experience, universe perception, and possibilities of joy, or of the cherubic? The music of the body is as lovely as Mozart. Hail Saint Rimbaud! Hail Saint Jesus! Hail Saint Raphael! Hail Muhammad Ali! Hail Sainted painters of the Sung Dynasty! Hail Saint Francis Crick! Give me your gift, but do NOT *intercede* for me with a messiah that YOU visualize. Within me is the UNIVERSE — and outside too. We are extrusions, facets, auras, in vibratory flowing surge of infinite possibilities.

I AM A MAN AND I AM A MAMMAL!
—I
KNOW
I AM.

•

The new scientific vision sees life creating itself *outward* from the minutest physical level to the macroscopic world of muscles, organs, perceptions of the senses, and animal activities. Till now man has looked into himself to see technically how HE *works.* The process is in reversal. We look to the sub-microscopic to discover how we are *created* — how the molecules become structures in a cell, how they coil themselves and move strings of acids carrying messages and directions, how the cells make the types of meat. At last, finally, the CREATURE is visible. This is an absolute shift in vision that alters our relationship to the bodies, atoms, and subatomic particles in our finger as well as to those in outer and distant space.



Scratching the Beat Surface
Michael McClure
$15 postpaid from:
North Point Press
850 Talbot Avenue
Berkeley, CA 94706
or Whole Earth
Household Store

A Zen Forest

Booksellers, stack this book next to your new electronic cash registers! Customers will pick it up, glance at a page, lose their eyelashes, glance again, lose their eyelids, and give you money.

For here, exquisitely translated, are 1234 Zen phrases collected in seventeenth-century Japan, "sifted from Ch'an texts, Chinese poems, and Buddhist, Taoist, and Confucian classics" (suggester Winston Fowlkes). Gary Snyder introduces the forest; "These bits of poems are not simply bandied about between Zen students as some kind of in-group wisdom or slangy shorthand for larger meanings. They are used sparingly, in interviews with the teacher, as a mode of reaching even deeper than a 'personal' answer to a problem; as a way of confirming that one has touched base with a larger Mind."

I can think of no book with more bang for the buck, contemplatively speaking. *—Stewart Brand*

[Suggested by Winston Fowlkes]

•

Cry
after cry
after cry of joy—
Not minding
the hair
turning white. *(52)*

•

A parrot cries,
"Green tea!"
Give it to him, but he doesn't
know what it is. *(114)*

•

Eyes wide, enter
the boiling water
—with dignity! *(151)*

•

Eyes level,
nose vertical. *(195)*

•

Tortoise hair is long;
hare horn, short. *(209)*

•

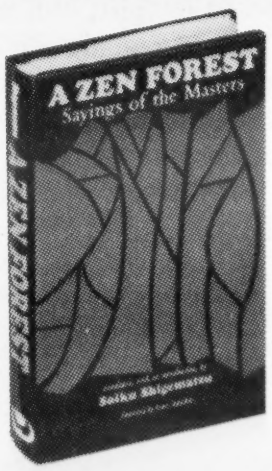
The whole earth:
all dark and dark. *(751)*

•

At each step,
the pure wind rises. *(1063)*

•

The ordinary and sacred
live together;
Dragons and snakes
all mixed up. *(1095)*



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The Gift Must Always Move

Lewis Hyde is a poet and translator with the blessed ability to delve into dry subjects like the exchange of goods and reveal hidden realms of magic and mystery which affect our hearts as well as our pocketbooks. In showing us some radically different approaches to property among tribal peoples, and the lessons to be drawn from a deep reading of traditional fairy tales, Hyde makes clear how much we've lost in our long march through the aisles to the check-out line. This essay has as much to do with ineffables – gifts that grow, invisible spirits, and simple generosity – as it does with economics as we know and bemoan it. Hyde functions as a close friend helping us to understand the symbols in a strange dream, not as an orator on a soapbox.

*In his willingness to fashion meaning from an atypical combination of sources, to address our spiritual and emotional sides, and to bring nature into the picture, Lewis Hyde is on common ground with Murray Bookchin's latest thinking ("Towards a Social Ecology," Winter '81 **CQ**) as well as the confluence of voices in the nuclear disarmament movement.*

*Lewis Hyde's poetry and writing have appeared in **The Paris Review**, **The Massachusetts Review**, and **The American Poetry Review**, among others. He has translated three books by Nobel Prize winner Vicente Aleixandre and is chairman of the Boston-area group working to form a national writers union. This essay originally appeared in slightly different form in **The Kenyon Review**, was reprinted in **The Fifth Estate** (where I first spied it), and with further revisions will form two chapters in Hyde's book, **The Gift: Poetry and the Erotic Life of Property**, to be published by Random House in February 1983. –Jay Kinney*

*Jay Kinney, whose discovery "The Gift" was, served as editor of the piece. Jay's talents range from editing (**Anarchy** comix) to cartooning (**Playboy**, **High Times**), to journalism (the exhaustive survey of the Left in the **Next Whole Earth Catalog**).*

Anthropologist Margaret MacLean did photo research at the University of California's Lowie Museum and provided invaluable scholarly perspective. She's now enroute to Peru, where she will be studying Inca royal architecture in the Cuzco Valley. –Stephanie Mills

by Lewis Hyde
Illustrated by Jay Kinney

I WOULD LIKE TO WRITE an economy of the imagination. I assume any "property system" expresses our own spirit – or rather, one of our spirits, for there are many ways to be human and many economies. As we all know, capitalism brings to life and rewards its own particular spirits (aggression, frugality, independence, and so on). My question is, what would be the form of an economy that took the imagination as its model, that was an emanation of the creative spirit?

The approach I have taken to this question might best be introduced by telling how I came to it in the first place. Some years ago I sat in a coffeehouse listening to someone read an exceptionally boring poem. In trying to imagine how or why the poem had come into existence, the phrase "commodity poem" came to mind – as if I had heard the language equivalent to a new Chevrolet. Even at that early point I meant "commodity" as opposed to "gift," for my own experience of poetry (both of reading and of writing) had been in the nature of a gift: something comes to us unbidden, alters our lives, and leaves us with a sense of gratitude – a form of "exchange," if you will, clearly unlike what happens to most of us in the marketplace.

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I am obviously speaking of gifts in a spiritual sense at this point, but I do not mean to exclude material gifts. For spirits take on bodies and it is in that mixture that we find human liveliness and attraction. Both economic and erotic life bring with them a mixture of excitement, frustration, fascination, and confusion because they must occur where body and spirit mingle, and it is in that union we discover the fullness of the world, or find it missing.

I should add that on a more mundane level my topic has found a source of energy in the situation of my own life. For some years now I have tried to make my way as a poet and a sort of "scholar without institution." Inevitably the money question comes up. You have to pay the rent. All artists, once they have passed their thirtieth birthday, begin to wonder how it is that a man or woman who wishes to live by his gifts is to survive in a land where everything is bought and sold.

These beginnings – the money question for myself and a sense of art as an "exchange" different from the market – became focused for me only after some friends had introduced me to the work that has been done in anthropology on gift exchange as a form of property. In many tribal groups a large portion of the material wealth circulates as gift and, not surprisingly, such exchange is attended by certain "fruits": people live differently who treat a portion of their wealth as gift. As I read through the ethnography I realized that in describing gift exchange as an economy I might be able to develop the language I needed in order to address the situation of the artist living in a land where market value is *the* value. At about the same time I began to read all the fairy tales I could find with gifts in them, because the image of what a gift is and does is the same in these tales as it is in the ethnography, but fairy tales tell of gifts in a manner closer to my final concern, the fate of the imagination.

I will not be able to fully describe what I mean by "gift" in the space of one essay. I want, therefore, to remark on two or three characteristics of a gift which shall not be addressed here.

One is that gifts mark or act as agents of individual transformation. Gift-exchange institutions cluster around times of change: birth, puberty, marriage, sickness, parting, arrival, and death. Sometimes the gift itself actually brings about the change, as if it could pass through a person's body and leave it altered. The best examples are true teachings – times when some person changes our life either directly or through the power of example. Such teachings are not like schoolbook lessons; they move the soul and we feel gratitude. I think of gratitude as a labor the soul undertakes to effect the transformation after a gift has been received. We work, sometimes for years, until the gift has truly ripened inside of us and can be passed along. (Note that gratitude is not the "obligation" we feel when we accept a gift we don't really want.)

Second, when you give someone a gift, a feeling-bond is set up between the two of you. The sale of commodities leaves no necessary link. Walking into a hardware store and buying a pound of nails doesn't connect you to the clerk in any way – you don't even need to talk to him if you don't want to (which is why commodities are associated with both freedom and alienation). But a gift makes a connection. With many gift-exchange situations, the bond is clearly the point – with marriage gifts and with gifts used as peace overtures, for example.

Finally it must be said that gift exchange has its negative aspects. Given their bonding power, "poisonous" gifts and gifts from evil people must be refused. In a fairy tale, the hero is in trouble if he eats the meal given to him by a witch. More generally, anyone who is supposed to stay "detached" (a judge, for example) shouldn't accept gifts. It is also true that the bonds set up by gift exchange limit our freedom of motion. If a young person wants to leave his or her parents, it's best to stop accepting their gifts because they will only maintain the parent-child connection. As gifts are associated with being connected to a community, so commodities are associated with both freedom and rootlessness.

In part because of these restrictions, I do not feel that gift exchange is, in the end, the exclusive "economy of the imagination." But it is a necessary part of that economy; the imagination will never come to its full power until we are at home with the gifts of both the inner and the outer world. An elaboration of the nature of gift exchange must, therefore, precede any more precise qualifying remarks, and it is this elaboration which I begin here.

The Motion

WHEN THE PURITANS first landed in Massachusetts they discovered a thing so curious about the Indians' feelings for property that they felt called upon to give it a name. In 1764, when Thomas Hutchinson wrote his history of the colony, the term was already an old saying: "An Indian gift," he told his readers, "is a proverbial expression signifying a present for which an equivalent return is expected." We still use this, of course, and in an even broader sense, calling that friend an Indian giver who is so uncivilized as to ask us to return a gift he has given.

Imagine a scene. An Englishman comes into an

The opposite of "Indian giver" would be something like "white man keeper" (or maybe "capitalist"), that is, a person whose instinct is to remove property from circulation.

Indian lodge, and his hosts, wishing to make their guest feel welcome, ask him to share a pipe of tobacco. Carved from a soft red stone, the pipe itself is a peace offering which has traditionally circulated among the local tribes, staying in each lodge for a time but always given away again sooner or later. And so the Indians, as is only polite among their people, give the pipe to their guest when he leaves. The Englishman is tickled pink. What a nice thing to send back to the British Museum! He takes it home and sets it on the mantelpiece. A time passes and the leaders of a neighboring tribe come to visit the colonist's home. To his surprise he finds his guests have some expectation in regard to his pipe, and his translator finally explains to him that if he wishes to show his good will he should offer them a smoke and give them the pipe. In consternation the Englishman invents a phrase to describe these people with such a limited sense of private property. The opposite of "Indian giver" would be something like "white man keeper" (or maybe "capitalist"), that is, a person whose instinct is to remove property from circulation, to put it in a warehouse or museum (or, more to the point for capitalism, to lay it aside to be used for production).

The Indian giver (or the original one, at any rate) understood a cardinal property of the gift: whatever we have been given is supposed to be given away again, not kept. Or, if it is kept, something of similar value should move on in its stead, the way a billiard ball may stop when it sends another scurrying across the felt, its momentum transferred. You may keep your Christmas present, but it ceases to be a gift in the true sense unless you have given something else away. As it is passed along, the gift may be given back to the original donor, but this is not essential. In fact, it is better if the gift is not returned, but is given instead to some new, third party. The only essential is this: *the gift must always move.* There are other forms of property that stand still, that mark a boundary or resist momentum, but the gift keeps going.

Tribal peoples usually distinguish between gifts and capital. Commonly they have a law which repeats the sensibility implicit in the idea of an Indian gift. "One man's gift," they say, "must not be another man's capital." Wendy James, a British social anthropologist, tells us that among the Uduk in northeast Africa, "any wealth transferred from one subclan to another, whether animals, grain or money, is in the nature of a gift, and should be consumed, and not invested for growth. If such transferred wealth is added to the subclan's capital [cattle in this case] and kept for growth and investment, the subclan is regarded as being in an immoral relation of debt to the donors of the original gift." If a pair of goats received as a gift from another subclan is kept to breed or to buy cattle, "there will be general complaint that the so-and-so's are getting rich at someone else's expense, behaving immorally by hoarding and investing gifts, and therefore being in a state of severe debt. It will be expected that they will soon suffer storm damage. . . ."

The goats in this example move from one clan to another just as the stone pipe moved from person to person in my imaginary scene. And what happens then? If the object is a gift, it keeps moving, which in this case means that the man who received the goats throws a big party and everyone gets fed. The goats needn't be given back but they surely can't be set aside to produce milk or more goats. And a new note has been added: the feeling that if a gift were not treated as such, if one form of property were to be converted into another, something horrible might happen. In folk tales the person who tries to hold onto a gift usually dies; in this anecdote the risk is "storm damage." (What happens in fact to most tribal groups is worse than storm damage. Where someone manages to commercialize a tribe's gift relationships the social fabric of the group is invariably destroyed.)

If we turn now to a folk tale we will be able to see all of this from a different angle. Folk tales are like collective dreams; they are told in the kind of voice we hear at the edge of sleep, mingling the facts of our lives with their images in the psyche. The first tale I have chosen was collected from a Scottish woman in the middle of the nineteenth century.

The Girl and the Dead Man

ONCE UPON A TIME there was an old woman and she had a leash of daughters. One day the eldest daughter said to her mother, "It is time for me to go out into the world and seek my fortune." "I shall bake a loaf of bread for you to carry with you," said the mother. When the bread came from the oven the mother asked her daughter, "Would you rather have a small piece and my blessing or a large piece and my curse?" "I would rather have the large piece and your curse," replied the daughter.

Off she went down the road and when the night came wreathing around her she sat at the foot of a wall to eat her bread. A ground quail and her twelve puppies gathered near, and the little birds of the air. "Wilt thou give us a part of thy bread," they asked. "I won't, you ugly brutes," she replied. "I haven't enough for myself." "My curse on thee," said the quail, "and the curse of my twelve birds, and thy mother's curse which is the worst of all." The girl arose and went on her way, and the piece of bread had not been half enough.

She had not traveled far before she saw a little house, and though it seemed a long way off she soon found herself before its door. She knocked and heard a voice cry out, "Who is there?" "A good maid seeking a master." "We need that," said the voice, and the door swung open.

The girl's task was to stay awake every night and watch over a dead man, the brother of the housewife, whose corpse was restless. As her reward she was to receive a peck of gold and a peck of silver. And while she stayed she was to have as many nuts as she broke, as many needles as she lost, as many thimbles as she pierced, as much thread as she used, as many candles as she burned, a bed of green silk over her and a bed of green silk under her, sleeping by day and watching by night.

On the very first night, however, she fell asleep in her chair. The housewife came in, struck her with a magic club, killed her dead, and threw her out back on the pile of kitchen garbage.

Soon thereafter the middle daughter said to her mother, "It is time for me to follow my sister and seek my fortune." Her mother baked her a loaf of bread and she too chose the larger piece and her mother's curse. And what had happened to her sister happened to her.

Soon thereafter the youngest daughter said to her mother, "It is time for me to follow my sisters and seek my fortune." "I had better bake you a loaf of bread," said her mother, "and which would you rather have, a small piece and my blessing or a large piece and my curse?" "I would rather," said the daughter, "have the smaller piece and your blessing."

And so she set off down the road and when the night came wreathing around her she sat at the foot of a wall to eat her bread. The ground quail and her twelve puppies and the little birds of the air gathered about. "Wilt thou give us some of that?" they asked. "I will, you pretty creatures, if you will keep me company." She

The consumer of commodities is invited to a meal without passion, a consumption with neither satiation nor fire.

shared her bread, all of them ate their fill, and the birds clapped their wings about her 'til she was snug with the warmth.

The next morning she saw a house a long way off. . . . [here the task and the wages are repeated].

She sat up at night to watch the corpse, sewing to pass the time. About midnight the dead man sat up and screwed up a grin. "If you do not lie down properly I will give you one good leathering with a stick," she cried. He lay down. After a while he rose up on one elbow and screwed up a grin; and a third time he sat up and screwed up a grin.

When he rose the third time she walloped him with the stick. The stick stuck to the dead man and her hand stuck to the stick and off they went! He dragged her through the woods, and when it was high for him it was low for her, and when it was low for him it was high for her. The nuts were knocking at their eyes and the wild plums beat at their ears until they both got through the wood. Then they returned home.

The girl was given the peck of gold, the peck of silver, and a vessel of cordial. She found her two sisters and rubbed them with the cordial and brought them back to life. And they left me sitting here, and if they were well, 'tis well; if they were not, let them be.

There are at least four gifts in this story. The first, of course, is the bread which the mother gives to her daughters as a going-away present. This becomes the second gift when the youngest daughter shares her bread with the birds. She keeps the gift in motion, the moral point of the tale. Several things, in addition to her survival, come to her as a result of treating the gift correctly. These are the fruits of the gift. First, she and the birds are relieved of their hunger; second, the birds befriend her; and third, she's able to stay awake all night and accomplish her task. (As we shall see, these results are not accidental, they are typical fruits of the gift.)

In the morning the third gift appears, the vessel of cordial. It is a healing liquid, not unlike the "water of life" which appears in folk tales from all over the world. It has power: with it she is able to revive her sisters. This liquid is thrown in as a reward for the successful completion of her task. It's a gift, mentioned nowhere in the wonderful litany of wages offered to each daughter. We will leave for later the question of where it comes from; for now we are looking at what happens to the gift after it is given, and again we find that this girl is no dummy – she moves it right along, giving it to her sisters to bring them back to life. That is the fourth and final gift in the tale.[1]

This story also gives us a chance to see what happens if the gift is not allowed to move on. A gift which cannot move loses its gift properties. Traditional belief in Wales holds that when the fairies give bread to the poor, the loaves must be eaten on the day they are given or they will turn to toadstools. If we think of the gift as a constantly flowing river, we may say that the girl in the tale who

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1. This story illustrates almost all the main characteristics of a gift so I shall be referring back to it. As an aside, therefore, I want to take a stab at its meaning. It says, I think, that if a girl without a father is going to get along in the world, she'd better have a good connection to her mother. The birds are the mother's spirit, what we'd now call the girls' psychological mother. The girl who gives the gift back to the spirit-mother has, as a result, her mother-wits about her for the rest of the tale.

Nothing in the tale links the dead man with the girl's father, but the mother seems to be a widow, or at any rate the absence of a father at the start of the story is a hint that the problem may have to do with men. It's not clear, but when the first man she meets is not only dead but difficult we are permitted to raise our eyebrows.

The man is dead, but not dead enough. When she hits him with the stick we see that she is in fact attached to him. So here's the issue: when a fatherless woman leaves home she'll have to deal with the fact that she's stuck on a dead man. It's a risky situation – the two elder daughters end up dead.

Not much happens in the wild run through the forest, except that everyone gets bruised. The girl manages to stay awake the whole time, however. This is a power she probably got from the birds, for they are night birds. The connection to the mother cannot spare her the ordeal, but it allows her to survive. When it's all over she's unstuck and we may assume that the problem won't arise again.

Though the dilemma of the story is not related to gift, all the psychological work is accomplished through gift exchange.

treats it correctly does so by allowing herself to become a channel for its current. When someone tries to dam up the river, one of two things will happen: either it will stagnate or it will fill the person up until he bursts. In this folk tale it is not just the mother's curse that gets the first two girls. The night birds give them a second chance and one imagines the mother bird would not have repeated the curse had she met with generosity. But instead the girls try to dam the flow, thinking that what counts is ownership and size. The effect is clear: by keeping the gift they get no more. They are no longer vehicles for the stream and they no longer enjoy its fruits, one of which seems to be their own lives. Their mother's bread has turned to toadstools inside them.

Another way to describe the motion of the gift is to say that a gift must always be used up, consumed, eaten. *The gift is property that perishes.* It is no accident that the gifts in two of our stories so far have been food. Food is one of the most common images for the gift because it is so obviously consumed. Even when the gift is not food, when it is something we would think of as a durable good, it is often referred to as a thing to be eaten. Shell necklaces and armbands are the ritual gifts in the Trobriand Islands and when they are passed from one group to the next, protocol demands that the man who gives them away toss them on the ground and say, "Here, some food we could not eat." Or, again, a man in another tribe that Wendy James has studied speaks of the money he was given at the marriage of his daughter, saying that he will pass it on rather then spend it on himself. He puts it this way: "If I receive money for the children God has given me, I cannot eat it. I must give it to others."

Many of the most famous of the gift systems we know about center on food and treat durable goods as if they were food. The potlatch of the American Indians along the North Pacific Coast was originally a "big feed." At its simplest a potlatch was a feast lasting several days given by a member of a tribe who wanted his rank in the group to be publicly recognized. Marcel Mauss translates the word *potlatch* as "to nourish" or "to consume." Used as a noun, *potlatch* is a "feeder" or "place to be satiated." Potlatches included durable goods, but the point of the festival was to have these perish as if they were food. Houses were burnt; ceremonial objects were broken and thrown into the sea. One of the potlatch tribes, the Haida, called their feasting "killing wealth."

To say that the gift is used up, consumed, and eaten sometimes means that it is truly destroyed, as in these last examples, but more simply and accurately it means that the gift perishes *for the person who gives it away.* In gift exchange the transaction itself consumes the object. Now it is true that something often comes back when a gift is given, but if this were made an explicit condition of the exchange it wouldn't be a gift. If the girl in our story had offered to sell the bread to the birds the whole tone would have been different. But instead she sacrifices it: her mother's gift is dead and gone when it leaves her hand. She no longer controls it, nor has she any contract about repayment. For her, the gift has perished. This then is how I use "consume" to speak of a gift – a gift is consumed when it moves from one hand to another with no assurance of anything in return. There is little difference, therefore, between its consumption and its motion. A market exchange has an equilibrium or stasis: you pay to balance the scale. But when you give a gift there is momentum and the weight shifts from body to body.

I must add one more word on what it is to "consume" because the Western industrial world is famous for its "consumer goods" and they are not at all what I mean. Again, the difference is in the form of the exchange, a thing we can feel most concretely in the form of the goods themselves. I remember the time I went to my first rare-book fair and saw how the first editions of Thoreau and Whitman and Crane had been carefully packaged in heat-shrunk plastic with the price tags on the inside. Somehow the simple addition of airtight plastic sacs had transformed the books from vehicles of liveliness into commodities, like bread made with chemicals to keep it from perishing. In commodity exchange it's as if the buyer and the seller are both in plastic bags; there's none of the contact of a gift exchange. There is neither motion nor emotion because the whole point is to keep the balance, to make sure the exchange itself doesn't consume anything or involve one person with another. "Consumer goods" are consumed by their owners, not by their exchange.

The desire to consume is a kind of lust. We long to have the world flow through us like air or food. We are thirsty and hungry for something that can only be carried inside bodies. But "consumer goods" merely bait this lust, they do not satisfy it. The consumer of commodities is invited to a meal without passion, a consumption with neither satiation nor fire. He is a stranger seduced into feeding on the drippings of someone else's capital without benefit of its inner nourishment, and he is hungry at the end of the meal, depressed and weary as we all feel when lust has dragged us from the house and led us to nothing.

Gift exchange has many fruits, as we shall see, and to the degree that the fruits of the gift can satisfy our needs there will always be pressure for property to be treated as a gift. This pressure, in a sense, is what keeps the gift in motion. When the Uduk warn that a storm will ruin the crops if someone tries to stop the gift from moving, it is really their

desire for the gift that will bring the storm. A restless hunger springs up when the gift is not being eaten. The brothers Grimm found a folk tale they called "The Ungrateful Son":

> ONCE A MAN and his wife were sitting outside the front door with a roast chicken before them which they were going to eat between them. Then the man saw his old father coming along and quickly took the chicken and hid it, for he begrudged him any of it. The old man came, had a drink and went away.
>
> Now the son was about to put the roast chicken back on the table, but when he reached for it, it had turned into a big toad that jumped in his face and stayed there and didn't go away again.
>
> And if anybody tried to take it away, it would give them a poisonous look, as if about to jump in their faces, so that no one dared touch it. And the ungrateful son had to feed the toad every day, otherwise it would eat part of his face. And thus he went ceaselessly hither and yon about in the world.[2]

This toad is the hunger that appears when the gift stops moving, whenever one man's gift becomes another man's capital. To the degree that we desire the fruits of the gift, teeth appear when it is hidden away. When property is hoarded, thieves and beggars begin to be born to rich men's wives. A story like this says that there is a force seeking to keep the gift in motion. Some property must perish, its preservation is beyond us. We have no choice. Or rather, our choice is whether to keep the gift moving or to be eaten with it. We choose between the toad's dumb-lust and that other, more graceful perishing in which our hunger disappears as our gifts are consumed.

2. In **The Grimms' German Folk Tales**, by Francis P. Magoun, Jr. and Alexander H. Krappe, translators. Copyright by Southern Illinois University Press. Reprinted by permission of the Southern Illinois University Press.

The Circle

"The gift is to the giver, and comes back most to him – it cannot fail . . ." —*Walt Whitman*

A BIT OF MYSTERY remains in the Scottish tale "The Girl and the Dead Man": Where did the "vessel of cordial" come from? My guess is that it comes from the mother, or from her spirit, at least. The gift not only moves, it moves in a circle. The mother gives the bread and the girl gives it in turn to the birds whom I place in the realm of the mother, not only because it is a mother bird who addresses her, but also because of a verbal link (the mother has a "leash of daughters," the mother bird has her "puppies"). The vessel of cordial is in the realm of the mother as well (the original Gaelic means "teat of ichor" or "teat of health": it is a fluid that comes from the breast). The level changes, to be sure – it is a different sort of mother whose breasts hold the blood of the gods – but it is still in the maternal sphere. Structurally, then, the gift moves mother → daughter → mother → daughter. In circling twice in this way the gift itself increases from bread to the water of life, from carnal food to spiritual food. At which point the circle expands as the girl gives the gift to her sisters to bring them back to life.

The figure of the circle in which the gift moves can be seen more clearly in an example from ethnography. Gift institutions are universal among tribal peoples; the few we know the most about are

"Once in the Kula, always in the Kula." Two men wearing mwali, armshells. The partnership established in Kula gift exchange is "a permanent and lifelong affair." —**Argonauts of the Western Pacific,** Bronislaw Malinowski, Dutton.

The uselessness of such "ceremonial gifts" seems to make it easier for them to become vehicles for the spirit of a group.

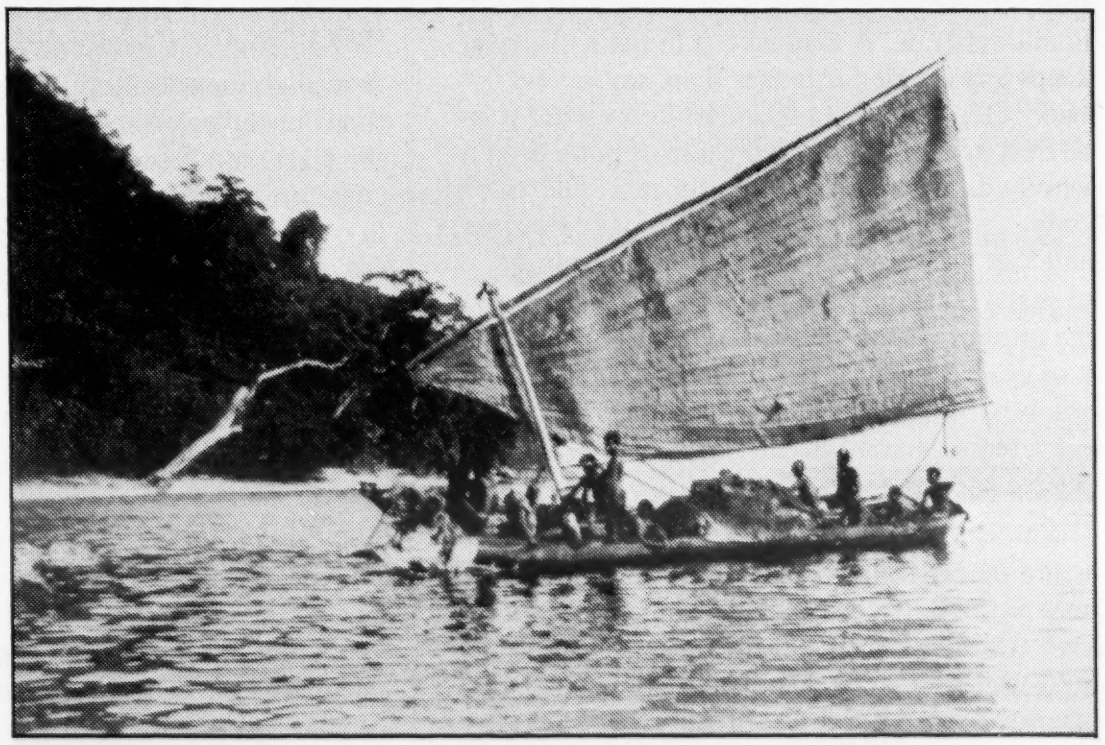
those which Western ethnographers studied around the turn of the century. One of these is the Kula, the ceremonial gift exchange of the Massim tribes, peoples who occupy the South Sea Islands off the eastern tip of New Guinea.

There are a dozen or more groups of islands in the Kula archipelago. They are quite far apart – a circle enclosing the whole group would have a diameter of almost 300 miles. The Kula is (or was 60 years ago) a highly developed gift system conducted throughout the islands. At its heart lies the exchange of two ceremonial gifts, armshells and necklaces. These are passed from household to household, staying with each for a time. So long as one of the gifts is residing in a man's house, Bronislaw Malinowski tells us, the man is able "to draw a great deal of renown, to exhibit this article, to tell how he obtained it, and to plan to whom he is going to give it. And all this forms one of the favourite subjects of tribal conversation and gossip. . ."

Malinowski calls the Kula articles "ceremonial gifts" because their social use far exceeds their practical use. A friend of mine tells me that his group of friends in college continually passed around a deflated basketball. The joke was to get it mysteriously deposited in someone else's room. The clear uselessness of such objects seems to make it easier for them to become vehicles for the spirit of a group. Another man tells me that when he was young his parents and their best friends passed back and forth, again as a joke, a huge open-ended wrench that had apparently been custom cast to repair a steam shovel. The two families found it one day on a picnic and for years thereafter it showed up first in one house, then in the other, under the Christmas tree or in the umbrella stand. If you have not yourself been a part of such an exchange you will easily turn up a story like these by asking around, for such spontaneous exchanges of "useless" gifts are fairly common, though hardly ever developed to the depth and elegance that Malinowski found among the Massim.

The Kula gifts, the armshells and necklaces, move continually around a wide ring of islands in the Massim archipelago. Each travels in a circle; the red shell necklaces (considered to be "male" and worn by women) move clockwise and the armshells ("female" and worn by men) move counterclockwise. A person who participates in the Kula has gift partners in neighboring tribes. If we imagine him facing the center of the circle with partners on his left and right, he will always be receiving armshells from his partner to the left and giving them to the man on this right. The necklaces flow the other way. Of course these things are not actually passed hand over hand; they are carried by canoe from island to island in journeys that require great preparation and cover hundreds of miles.

The two Kula gifts are exchanged for each other. If a man brings me a necklace, I will give him in return some armshells of equivalent value. I may



The Kula expedition begins with the felling of a tree to make a canoe. Magic accompanies the work of building. Sailing the finished craft across the sea is perilous but alluring. Kula voyages provide adventures to marvellous lands and legendary places. **(Argonauts of the Western Pacific)**

Blowing a conch shell heralds the approach of a haul of armshells. These men display a chief's share. The arrival occasions a festive ceremonial gathering where news of the chief's expedition and Kula gifts are exchanged. (**Argonauts of the Western Pacific**)

do this right away or I may wait as long as a year (though if I wait that long I will give him a few smaller gifts in the interim to show my good faith). As a rule it takes between two and ten years for each article in the Kula to make a full round of the islands.

Because these gifts are exchanged for each other the Kula seems to break the rule against equilibrium that I set out in the first section. But let us look more closely. We should first note that the Kula articles are kept in motion, though this does not necessarily mean there is no equilibrium. Each gift stays with a man for a while, but if he keeps it too long he will begin to have a reputation for being "slow" and "hard" in the Kula. The gifts "never stop," writes Malinowski. "It seems almost incredible at first . . . , but it is the fact, nevertheless, that no one ever keeps any of the Kula valuables for any length of time. . . . 'Ownership,' therefore, in Kula, is quite a special economic relation. A man who is in the Kula never keeps any article for longer than, say, a year or two." The Trobriand Islanders know what it is to own property, but their sense of possession is wholly different from the European. The "social code . . . lays down that to possess is to be great, and that wealth is the indispensable appanage of social rank and attribute of personal virtue. But the important point is that with them *to possess is to give* – and here the natives differ from us notably. A man who owns a thing is naturally expected to share it, to distribute it, to be its trustee and dispenser."

The motion of the Kula gifts does not in itself assure that there will be no equilibrium, for, as we have seen, they move but they are also exchanged. Two ethics, however, govern this exchange and both of them insure that, while there may be a macroscopic equilibrium, at the level of each man there will be the sense of imbalance, of shifting weight, that always marks a gift exchange. The first of these ethics prohibits discussion: "The Kula," writes Malinowski, "consists in the bestowing of a ceremonial gift, which has to be repaid by an equivalent counter-gift after a lapse of time. . . . But [and this is the point], it can never be exchanged from hand to hand, with the equivalence between the two objects discussed, bargained about, and computed." A man may wonder what will come in return for his gift, but he is not supposed to bring it up. Gift exchange is not a form of barter. "The decorum of the Kula transaction is strictly kept, and highly valued. The natives distinguish it from barter, which they practice extensively [and] of which they have a clear idea. . . . Often, when criticising an incorrect, too hasty, or indecorous procedure of Kula, they will say: 'He conducts his Kula as if it were [barter].' " Partners in barter talk and talk until they strike a balance, but the gift is given in silence.

A second important ethic, Malinowski tells us, "is that the equivalence of the counter-gift is left to the giver, and it cannot be enforced by any kind of coercion." If a man gives a second-rate necklace in return for a fine set of armshells, people may talk, but there is nothing anyone can do about it. When we barter we make deals and if someone defaults we go after him, but the gift must be a gift. It is as if you give a part of your substance to your gift partner and then wait in silence until he gives you a part of his. You put your self in his hands. These rules – and they are typical of gift institutions – preserve the sense of motion despite the exchange involved. There is trade, but these are not commodities.

We commonly think of gifts as being exchanged between two people and of gratitude as being directed back to the actual donor. *Reciprocity*,

When I give to someone from whom I do not receive (and yet I do receive elsewhere) it is as if the gift goes around a corner before it comes back.

the standard social science term for returning a gift, has this sense of going to and fro between people (the roots are *re* and *pro*, back and forth, like a reciprocating engine). The gift in the Scottish tale is given reciprocally, going back and forth between the mother and her daughter (until the very end).

Reciprocal giving is a form of gift exchange, but it is the simplest. The gift moves in a circle and two people do not make much of a circle. Two points establish a line, but a circle lies in a plane and needs at least three points. This is why, as we shall see, most of the stories of gift exchange have a minimum of three people. I have introduced the Kula circuit here because it is such a fine example. For the Kula gifts to move, each man must have at least two gift partners. In this case the circle is larger than that, of course, but three is its lower limit.

Circular giving differs from reciprocal giving in several ways. First, when the gift moves in a circle no one ever receives it from the same person he gives it to. I continually give armshells to my partner to the west but, unlike a two-person give-and-take, he never gives me armshells in return. The whole mood is different. The circle is the structural equivalent of the prohibition on discussion. When I give to someone from whom I do not receive (and yet I do receive elsewhere) it is as if the gift goes around a corner before it comes back. I have to give blindly. And I will feel a sort of blind gratitude, as well. The smaller the circle is – and particularly if it is just two people – the more a man can keep his eye on things and the more likely it is he will start to think like a salesman. But so long as the gift passes out of sight it cannot be manipulated by one man or one pair of gift partners. When the gift moves in a circle its motion is beyond the control of the personal ego and so each bearer must be a part of the group and each donation is an act of social faith.

What size is the circle? In addressing this question I have come to think of the circle, the container in which the gift moves, as its "body" or "ego." Psychologists sometimes speak of the ego as a "complex" like any other: the Mother, the Father, the Me – all of these are important places in the field of the psyche where images and energy cluster as we grow, like stars in a constellation. The ego complex takes on shape and size as the Me – that part of the psyche which takes everything personally – retains our private history, how others have treated us, how we look and feel and so on.

I find it useful to think of the ego complex as a thing which keeps expanding, not as something to be overcome or done away with. An ego has formed and hardened by the time most of us reach adolescence, but it is small, an ego-of-one. Then, if we fall in love, for example, the constellation of identity expands and the ego-of-one becomes an ego-of-two. The young lover, often to his own amazement, finds himself saying "we" instead of "me." Each of us identifies with a wider and wider community as we mature, coming eventually to think and act with a group-ego (or, in most of these gift stories, a tribal-ego), which speaks with the "we" of kings and wise old people. Of course the larger it becomes the less it feels like what we usually mean by ego. Not entirely, though: whether an adolescent is thinking of himself or a nation of itself, it still feels like egotism to anyone who is not included. There is still a boundary.

If the ego widens still farther, however, it really does change its nature and become something we would no longer call ego. There is a consciousness in which we act as part of things larger even than the race. When I picture this I always think of the end of "Song of Myself" where Whitman dissolves into the air:

> I effuse my flesh in eddies, and drift it in lacy jags.
> I bequeath myself to the dirt and grow from the grass I love,
> If you want me again look for me under your boot-soles.

Now the part that says "me" is scattered. There is no boundary to be outside of, unless the universe itself is bounded.

In all of this we could substitute "body" for "ego." Aborigines commonly refer to their own clan as "my body," just as our marriage ceremony speaks of becoming "one flesh." Again, the body can be enlarged beyond the private skin, and in its final expansion there is no body at all. When we are in the spirit of the gift we love to feel the body open outward. The ego's firmness has its virtues, but at some point we seek to slow dilation, to use another term of Whitman's, in which the ego enjoys a widening give-and-take with the world and is finally abandoned in ripeness.

The gift can circulate at every level of the ego. In the ego-of-one we speak of self-gratification

If, when we work, we can look once a day upon the face of mystery, then our labor satisfies.

and, whether it's forced or chosen, a virtue or a vice, the mark of self-gratification is its isolation. Reciprocal giving, the ego-of-two, is a little more social. We think mostly of lovers. Each of these circles is exhilarating as it expands and the little gifts that pass between lovers touch us because each is stepping into a larger circuit. But again, if the exchange goes on and on to the exclusion of others, it soon goes stale. D.H. Lawrence spoke of the *egoisme á deux* of so many married couples, people who get just so far in the expansion of the self and then close down for a lifetime, opening up for neither children, nor the group, nor the gods. A folk tale from Kashmir tells of two Brahmin women who tried to dispense with their alms-giving duties by simply giving alms back and forth to each other. They didn't quite have the spirit of the thing. When they died, they returned to Earth as two wells so poisoned that no one could take water from them. No one else can drink from the ego-of-two. It has its moment in our maturation but it is an infant form of the gift circle.

In the Kula we have already seen a fine example of the larger circle. The Maori, the native tribes of New Zealand, provide another, similar in some ways to the Kula, but offering new detail and a hint of how gift exchange will feel if the circle expands beyond the body of the tribe. The Maori have a word, *hau*, which translates as "spirit," particularly the spirit of the gift and the spirit of the forest which gives food. In these tribes when hunters return from the forest with birds they have killed they give a portion of the kill to the priests who, in turn, cook them at a sacred fire. The priests eat a few of the birds and then prepare a sort of talisman, the *mauri*, which is the physical embodiment of the forest *hau*. This *mauri* is a gift the priests give back to the forest where, as a Maori sage once explained to an Englishman, it "causes the birds to be abundant . . . , that they may be slain and taken by man."

There are three gifts in this hunting ritual; the forest gives to the hunters, the hunters to the priests, and the priests to the forest. At the end, the gift moves from the third party back to the first. The ceremony that the priests perform is called *whangai hau*, which means "nourishing *hau*," feeding the spirit. To give such a name to the priests' activity says that the addition of the third party keeps the spirit of the gift alive. Put conversely, without the priests there is a danger that the motion of the gift will be lost. It seems to be too much to ask of the hunters to both kill the game and return a gift to the forest. As we said in speaking of the Kula, gift exchange is more likely to turn into barter when it falls into the ego-of-two. With a simple give-and-take, the hunters may begin to think of the forest as a place to turn a profit. But with the priests present, the gift must leave the hunters' sight before it returns to the woods. The priests take on or incarnate the position of the third thing to avoid the binary relation of the hunters and forest which by itself would not be abundant. The priests, by their presence alone, feed the spirit.

Every gift calls for a return gift, and so, by placing the gift back in the forest, the priests treat the birds as a gift of nature. We now understand this to be ecological. Ecology as a science began at the end of the nineteenth century, an offshoot of the rising interest in evolution. Originally the study of how animals survive in their environments, ecology had as one of its first lessons the teaching that beneath all the change in nature, there are steady states characterized by cycles. Every participant in the cycle literally lives off the others with only the ultimate energy source, the sun, being transcendent. Widening the study of ecology to include man means to look at ourselves as a part of nature again, not its Lord. When we see that we are actors in natural cycles then we understand that what nature gives to us is influenced by what we give to nature. So the circle is a sign of an ecological insight as much as of gift exchange. We come to feel ourselves as one part of a large self-regulating system. The return gift, the "nourishing *hau*," is literally feedback, as they say in cybernetics. Without it, that is to say, with any greed or arrogance of will, the cycle is broken. We all know that it isn't "really" the *mauri* placed in the forest that "causes" the birds to be abundant, and yet now we see that on a different level it is: the circle of gifts enters the cycles of nature and in so doing manages not to interrupt them and not to put man on the outside. The forest's abundance is in fact a consequence of man's treating its wealth as a gift.

The Maori hunting ritual enlarges the circle within which the gift moves in two ways. First, it includes nature. Second and more importantly, it includes the gods. The priests act out a gift relationship with the deities, giving thanks and sacrificing gifts to them in return for what they give the tribe. A story from the Old Testament will show us the same thing in a tradition with which we are more familiar. The structure is identical.

In the Pentateuch the first fruits always belong to the Lord. In Exodus the Lord tells Moses: "Consecrate to me all the firstborn; whatever is the first to open the womb among the people of Israel, both of man and of beast, is mine." The Lord gives the tribe its wealth and the germ of that wealth is then given back to the Lord. Fertility is a gift from God and in order for it to continue, its first fruits are returned to him as a return gift. In pagan times this had apparently included sacrificing the firstborn son, but the Israelites had early been allowed to substitute an animal for the child, as in the story of Abraham and Isaac. Likewise a lamb was substituted for the firstborn of any unclean animal. The Lord says to Moses:

> All that opens the womb is mine, all your male cattle, the firstlings of cow and sheep. The firstling of an ass you shall redeem with a lamb, or if you will not redeem it you shall break its neck. All the firstborn of your sons you shall redeem.

Elsewhere the Lord explains to Aaron what is to be done with the firstborn. Aaron and his sons are responsible for the priesthood and they minister at the altar. The lambs, calves, and kids are to be sacrificed: "You shall sprinkle their blood upon the altar, and shall burn their fat as an offering by fire, a pleasing odor to the Lord; but their flesh shall be yours. . . ." As in the Maori story, the priests eat a portion of the gift. But its essence is burned and returned to the Lord in smoke.

The gift cycle has three stations and more – the flocks, the tribe, the priests and the Lord. The inclusion of the Lord in the circle – and this is the point I began to make above – changes the ego in which the gift moves in a way unlike any other addition. It is enlarged beyond the tribal ego and beyond nature. Now, as I said when I first introduced the image, we would no longer call it an "ego" at all. The gift leaves all boundary and circles into mystery.

The passage into mystery always refreshes. If, when we work, we can look once a day upon the face of mystery, then our labor satisfies. We are lightened when our gifts rise from pools we cannot fathom. Then we know they are not a solitary egotism, and they are inexhaustible. Anything contained within a boundary must contain as well its own exhaustion. The most perfectly balanced gyroscope slowly wears down. But when the gift passes out of sight and then returns we are enlivened. Material goods pull us down into their bones unless their fat is singed occasionally. It is when the world flames a bit in our peripheral vision that it brings us jubilation and not depression. We stand before a bonfire or even a burning house and feel the odd release it brings, as if the trees could give the sun return for what enters them through the leaf. When no property can move, then even Moses' Pharoah is plagued with hungry toads. A sword appears to seek the firstborn son of that man who cannot be moved to move the gift. But Pharoah himself was dead long before his firstborn was taken, for we are only alive to the degree that we can let ourselves be moved. And when the gift circles into mystery the liveliness stays, for it is "a pleasing odor to the Lord" when the first fruits are effused in eddies and drifted in lacy jags above the flame.

I described the motion of the gift earlier in this essay by saying that gifts are always used, consumed, or eaten. Now that we have seen the figure of the circle we can understand what seems at first to be a paradox of gift exchange: when the gift is used it is not used up. Quite the opposite in fact: the gift that is not used will be lost while the one that is passed along remains abundant. In the Scottish tale the girls who hoard their bread are fed only while they eat. The meal finishes in hunger though they took the larger piece. The girl who shares her bread is satisfied. What is given away feeds again and again while what is kept feeds only once and leaves us hungry.

The tale is a parable, but in the Kula ring we saw the same as a social fact. The necklaces and armshells are not diminished by their use, but satisfy faithfully. Only when a foreigner steps in to buy one for his collection is it "used up" by a transaction. And the Maori hunting tale showed us that not just food in parables but food in nature remains abundant when it is treated as gift, when we participate in the moving circle and do not stand aside as hunter or exploiter. Gifts are a class of property whose value lies only in their use and which literally ceases to exist as gifts if not constantly consumed. When gifts are sold they change their nature as much as water changes when it freezes, and no rationalist telling of the constant elemental structure can replace the feeling that is lost.

In E.M. Forster's novel **A Passage to India**, Dr. Aziz, the Moslem, and Fielding, the Englishman,

Our generosity may leave us empty but our emptiness then pulls gently at the whole until the thing in motion returns to replenish us. Social nature abhors a vacuum. Counsels Meister Eckhart, the mystic: "Let us borrow empty vessels."

have a brief dialogue, a typical debate between gift and commodity. Fielding says:

> "Your emotions never seem in proportion to their objects, Aziz."
>
> "Is emotion a sack of potatoes, so much to the pound, to be measured out? Am I a machine? I shall be told I can use up my emotions by using them, next."
>
> "I should have thought you would. It sounds common sense. You can't eat your cake and have it, even in the world of the spirit."
>
> "If you are right, there is no point in any friendship . . . , and we had better all leap over this parapet and kill ourselves."

In the world of gift, as in the Scottish tale, you not only can have your cake and eat it too, you can't have your cake *unless* you eat it. Gift exchange and erotic life are connected in this regard. The gift is an emanation of Eros, and therefore to speak of gifts which survive their use is to speak of a natural fact: libido is not lost when it is given away. Eros never wastes his lovers. When we give ourselves in the spirit of that god he does not leave off his attentions; it is only when we fall to calculation that he remains hidden and no body will satisfy. Satisfaction derives not merely from being filled but from being filled with a current that will not cease. With the gift, as in love, our satisfaction sets us at ease because we know that somehow its use at once assures its plenty.

Scarcity and abundance have as much to do with the form of exchange as with how much material wealth is at hand. Scarcity appears when wealth cannot flow. Elsewhere in **A Passage to India**, Dr. Aziz says, "If money goes, money comes. If money stays, death comes. Did you ever hear that useful Urdu proverb?" and Fielding replies, "My proverbs are: a penny saved is a penny earned; a stitch in time saves nine; look before you leap; and the British Empire rests on them." He's right. An empire needs its clerks with their ledgers and their clocks saving pennies in time. The problem is that wealth ceases to move freely when all things are counted and priced. It may accumulate in great heaps but fewer and fewer people can afford to enjoy it. After the war in Bangladesh, thousands of tons of donated rice rotted in warehouses because the market was the only known mode of distribution and the poor, naturally, couldn't afford to buy. Marshall Sahlins, an anthropologist who has done some of the best work on gift exchange, begins a comment on modern scarcity with the paradoxical contention that hunters and gatherers "have affluent economies, their absolute poverty notwithstanding." He writes:

> Modern capitalist societies, however richly endowed, dedicate themselves to the proposition of scarcity. [Both Samuelson and Friedman begin their economies with "The Law of Scarcity"; it's all over by the end of Chapter One.] Inadequacy of economic means is the first principle of the world's wealthiest peoples. The apparent material status of the economy seems to be no clue to its accomplishments; something has to be said for the mode of economic organization.
>
> The market-industrial system institutes scarcity, in a manner completely unparalleled and to a degree nowhere else approximated. Where production and distribution are arranged through the behavior of prices, and all livelihoods depend on getting and spending, insufficiency of material means becomes the the explicit, calculable starting point of all economic activity.

Given material abundance, scarcity must be a function of boundaries. If there is plenty of air in the world but something blocks its passage to the lungs, the lungs do well to complain of scarcity. The assumptions of market exchange may not necessarily lead to the emergence of boundaries, but they do in practice. When trade is "clean" and leaves people unconnected, when the merchant is free to sell when and where he will, when the market moves mostly for profit and the dominant myth is not "to possess is to give" but "the fittest survive," then wealth will lose its motion and gather in isolated pools. Under the assumptions of exchange trade, property is plagued by entropy and wealth can become scarce even as it increases.

A commodity is truly "used up" when it is sold because nothing about the exchange assures its return. The visiting sea captain may pay handsomely for a Kula necklace, but because the sale removes it from the circle it wastes it, no matter the price. Gifts that remain gifts can support an affluence of satisfaction, even without numerical abundance. The mythology of the rich in the overproducing nations that the poor are in on some secret about satisfaction – black "soul,"

gypsy *duende*, the noble savage, the simple farmer, the virile gamekeeper – obscures the harshness of modern capitalist poverty, but it does have a basis, for people who live in voluntary poverty or who are not capital intensive do have more ready access to "erotic" forms of exchange that are neither exhausting nor exhaustible and whose use assures their plenty.

If the commodity moves to turn a profit, where does the gift move? The gift moves toward the empty place. As it turns in its circle it turns toward him who has been emptyhanded the longest, and if someone appears elsewhere whose need is greater it leaves its old channel and moves toward him. Our generosity may leave us empty but our emptiness then pulls gently at the whole until the thing in motion returns to replenish us. Social nature abhors a vacuum. Counsels Meister Eckhart, the mystic: "Let us borrow empty vessels." The gift finds that man attractive who stands with an empty bowl he does not own.[3]

The begging bowl of the Buddha, Thomas Merton has said, "represents the ultimate theological root of the belief, not just in a right to beg, but in openness to the gifts of all beings as an expression of the interdependence of all beings. . . . The whole idea of compassion, which is central to Mahayana Buddhism, is based on an awareness of the interdependence of all living beings. . . . Thus when the monk begs from the layman and receives a gift from the layman, it is not as a selfish person getting something from somebody else. He is simply opening himself to this interdependence. . . ." The wandering mendicant takes it as his task to carry what is empty from door to door. There is no profit; he merely stays alive if the gift moves toward him. He makes its spirit visible to us. His well-being, then, is a sign of its well-being, as his starvation would be a sign of its withdrawal. Our English word *beggar* comes from the Beghards, a brotherhood of mendicant friars that grew up in the thirteenth century in Flanders. There are still some places in the East where wandering mendicants live from the begging bowl; in Europe they died out at the close of the Middle Ages.

As the bearer of the empty place the religious mendicant has an active duty beyond his supplication. He is the vehicle of that fluidity which is abundance. The wealth of the group touches his bowl at all sides, as if it were the center of a wheel where the spokes meet. The gift gathers there and the mendicant gives it away again when he meets someone who is empty. In European folk tales the beggar often turns out to be Wotan, the true "owner" of the land, who asks for charity though it is his own wealth he moves within, and who then responds to neediness by filling it with gift. He is godfather to the poor.

Folk tales commonly open with a beggar motif. In a tale from Bengal, a king has two queens, both of whom are childless. A faquir, a wandering mendicant, comes to the palace gate to ask for alms. One of the queens walks down to give him a handful of rice. When he finds that she is childless, however, he says that he cannot accept the rice but has a gift for her instead, a potion that will remove her barrenness. If she drinks his nostrum with the juice of the pomegranate flower, he tells her, in due time she will bear a son whom she should then call the Pomegranate Boy. All this comes to pass and the tale proceeds.

Such stories declare that the gift does move from plenty to emptiness. It seeks the barren, the arid, the stuck, and the poor. The Lord says "all that opens the womb is mine" for it is He who filled the empty womb, having earlier stood as a beggar by the sacrificial fire or at the gates of the palace.

3. Folk tales are the only "proof" I shall be able to offer for these assertions. The point is more spiritual than social: in the spiritual world, new life comes to those who "give up."

The Increase

THE GIFT THE BEGGAR gives to the queen in this last folk tale brings the queen her fertility and she bears a child. Fertility and growth are common fruits of gift exchange. Think back on all we have seen so far – the Gaelic tale, the Kula ring, the rites of the firstborn, feeding the forest *hau*, and so on – fertility is often a concern and invariably either the bearers of the gift or the gift itself grows as a result of its circulation.

Living things which we classify as gifts really grow, of course, but even inert gifts, such as the Kula articles, are *felt* to increase – in worth or in liveliness – as they move from hand to hand. The distinction – alive/inert – is not always useful, in fact, because even when a gift is not alive it is treated as if it were, and whatever we treat as living begins to take on life. Moreover, gifts which have taken on life can bestow it in return. The final gift in the Gaelic tale revives the dead sisters. Even if such miracles are rare, it is still a fact of the soul that depression – or any heavy, dead feeling – will lift away when a gift comes toward us. Gifts not only move us, they enliven us.

The gift is a servant to forces which pull things together and lift them up. There are other forces in the world that break things down into smaller and smaller bits, that find the fissures in stones and split them apart or enter a marriage and leave it lifeless at the core. In living organisms, the atomizing forces are associated with decay and death,

while the cohering forces, the ones that wrap the morning-glory around a fence post or cover the ashy slopes of a new volcano with little pine trees, these are associated with life. Gift property serves an upward force. On one level it reflects and carries the form of organic growth, but above that, at the level of society and spirit, the gift carries our own liveliness. We spiral upward with the gift, or at least it holds us upright against the forces that split us apart and pull us down.

To speak in this manner risks confusing biological "life" with cultural and spiritual "life" – a confusion I would like to avoid for the two are not always the same. They are linked, but there is also a gap. In addressing the question of increase let us therefore take a gift at the level of culture – something inorganic and inedible in fact – and see how far we can go toward explaining its *felt* increase without recourse to the natural analogy.

The North Pacific tribes of the American Indians (the Kwakiutl, Tlingit, Haida, and others) exchanged as ceremonial gifts large decorated copper plaques. These coppers were always associated with the property given away at a potlatch – a ceremony that marked important events such as a marriage or, more commonly, the assumption of rank by a member of a tribe. The word *potlatch* means simply "giving."[4]

Coppers increased in worth as they circulated. At the time when Franz Boas witnessed the exchange of a copper in the 1890s, their worth was reckoned in terms of woolen Hudson Bay Company trade blankets. To tell the story briefly and in terms of the increase involved: one of the tribes in Boas's report has a copper to give away; they invite a neighboring tribe to a feast and offer them the gift. The second tribe accepts, putting themselves under the obligation to make a return gift. The transaction takes place the next day on a beach. The first tribe brings the copper and the leader of the second tribe lays down 1000 trade blankets as a return gift.

Then things get interesting. The chiefs who are giving the copper away don't accept the return gift. Instead they slowly replay the entire history of this copper's previous passages, first one man saying that just 200 more blankets will be fine and then another saying that really an additional 800 will be needed to make everyone feel right, while the recipient of the copper responds saying either "What you say is good, it pleases my heart," or else begging for mercy as he brings out more and more blankets. Five times the chiefs ask for more blankets and five times they are brought out until 3700 are stacked up in a long row on the beach.

When the copper's entire history has been acted out, the talk stops. Now comes the true return gift, these formalities having merely raised the exchange into the general area of this copper's worth. Now the receiving chief, on his own, announces he would like to "adorn"' his guests. He brings out 200 more blankets and gives them individually to the visitors. Then he adds still another 200, saying, "you must think poorly of me," and telling about his forefathers.

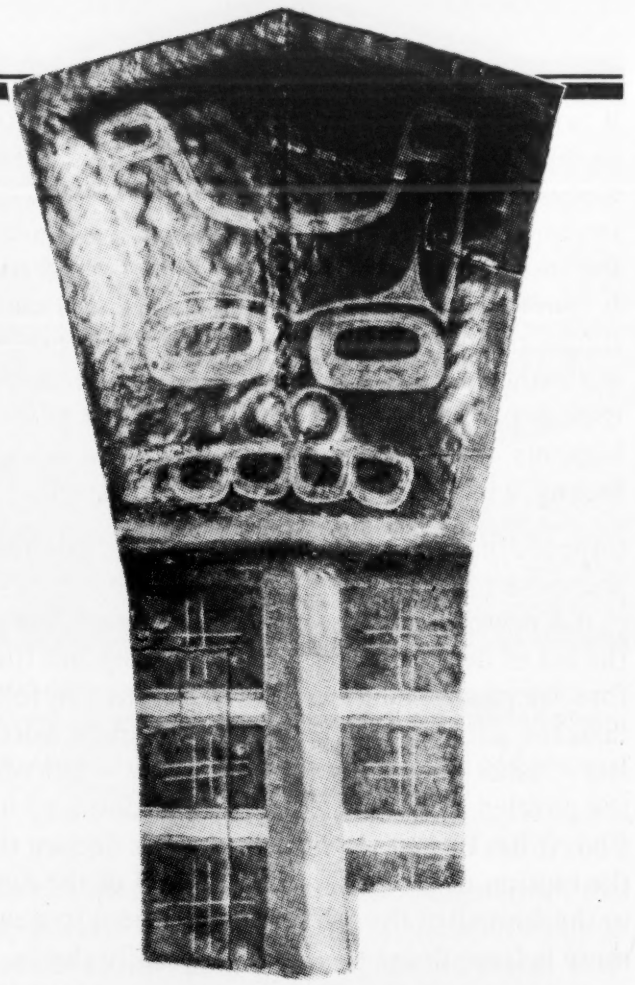
These 400 blankets are given without any of the dialogue that marked the first part of the ceremony. It is here that the recipient of the copper shows his generosity and it is here that the copper increases in worth. The next time it is given away, people will remember how it grew by 400 blankets in its last passage.

Before I comment on this exchange I must describe a second situation in which coppers were felt to increase in value. Several occasions called for the actual destruction of a ceremonial copper. The Tsimshian tribes, for example, would break a copper when they held a potlatch to honor a dead chief and recognize his heir. During this "feast for the dead," a masked dancer would come forward with a copper and instruct the new chief to break it into pieces and then give these pieces to his guests. The chief would take a chisel and cut the copper apart. Among the Kwakiutl when Boas studied them, a man would sometimes break a copper and give the pieces to a rival who would then try to find a copper of equivalent value, break it, and give back the pieces of both. The man who had initiated the exchange was then obliged to hold a potlatch, distributing food and valuables at least equal to the new (and broken) copper he had received. Sometimes the initial recipient of a broken copper would find a second one, break it, and then throw them both into the sea, an action which brought him great prestige. Most coppers did not end up in the water, however; even when broken, the pieces were saved and continued to circulate. And if someone succeeded in gathering up the parts of a dismembered copper, Boas reports, they were "riveted together, and the copper . . . attained an increased value."

It is clear in the literature that coppers increased in worth as they were broken, but I'm not sure it is clear why. To suggest an explanation I want to introduce an image of dismemberment and increase from a very different culture. There are several ancient gods whose stories involve being broken and

4. I cannot here tell the story of potlatch in its full detail, but I should note that two of its better known characteristics in the popular literature – the usurious nature of loans and the rivalry or "fighting with property" – while based on traceable aboriginal motifs, are really post-European elaborations. The tribes had known a century of European trade before Boas arrived. When Marcel Mauss read through Boas's material he declared potlatch "the monster child of the gift system." So it was. As first studied, potlatch was the progeny of a "civilized" commodity trade mated to an aboriginal gift economy; some of the results were freakish.

The spirit of the gift increases because the body of the gift is consumed.



A copper which, in an act of supreme pride and seeming indifference, may well have been broken at a potlatch. Its value has been enormously enhanced by being retrieved (from a river, perhaps) and riveted back together. The Museum of Anthropology, University of British Columbia.

then brought back to life – Osiris in Egypt, Dionysos in Crete and Greece, and Bacchus in Rome, to name a few. I shall take Dionysos as my example here.

Carl Kerényi, the Romanian historian of religion, introduces his book on Dionysos by saying that his first insight into the god of wine came to him in a vineyard – he was looking at the grapevine itself and what he saw was "the image of indestructible life." The temples are abandoned but the vine still grows over the fallen walls. To explain the image, Kerényi distinguishes between two terms for "life" in Greek, *bios* and *zoë*. *Bios* is limited life, characterized life, life that dies. *Zoë* is the life which endures; it is the thread which runs through *bios*-life and is not broken when the particular perishes. (In this country we call it "the gene pool.") Dionysos is a god of *zoë*-life.

In his earliest Minoan forms Dinoysos is associated with honey and with honey-beer or mead. Both honey and grape juice became images of this god because they ferment: "A natural phenomenon inspired a myth of *zoë*," writes Kerényi, "a statement concerning life which shows its indestructibility . . . even in decay." When honey ferments what has rotted not only comes back to life – bubbles up – but its "spirit" survives. Moreover, when the fermentation is drunk the spirit comes to life in a new body. Drinking the mead is the sacrament of re-membering the god.

The association of Dionysos with honey is very early; wine soon replaced mead as the spirit drink, but the essentials of the image remained the same. In later centuries Greek celebrants of Dionysos would sing of the dismemberment of their god as they crushed the grapes through the wine presses.

Dionysos is a god who is broken into a higher life. He returns from his dismemberment as strong or stronger than before, the wine being the essence of the grapes and more powerful. The Tsimshian tribes called the fragments of a copper given away at a mortuary potlatch "the bones of the dead." They stand for what does not decay although the body decays. To dismember the copper after the death of the chief and then to declare the pieces, or the reassembled copper, to be of increased value, is to declare that human life participates in *zoë*-life and that the spirit grows even though, or perhaps because, the body dies. In terms of the gift: the spirit of the gift increases because the body of the gift is consumed. When a copper is exchanged for blankets the increase comes as a sort of investment, but when coppers are broken it comes simply through consumption. People feel the gift is worth more just because it has been used up. Boas, when he discusses the potlatch, lumps feasting and the breaking of coppers together in the same paragraph; both are "eating the gift" as much as the destruction of property.

But I should stop here, for I have already strayed back toward explaining the increase of gifts by way of natural metaphors. Not that it is incorrect to speak in this manner; inorganic gifts do become the vehicles of *zoë*-life when we choose to invest it in them.[5] But there is a different sort of "investment" – one which can be described without invoking the gods of vegetable life – in the exchange of a copper as Boas has recorded it for us. To begin with, each time the copper passes from one group to another, more blankets are heaped into

5. A confusion between organic liveliness and cultural or spiritual liveliness is inherent to a discussion of gift exchange. As Mauss first pointed out, in an exchange of gifts, "things . . . are to some extent parts of persons, and persons . . . behave in some measure as if they were things." In the case of the mortuary potlatch, a material "thing" symbolizes a biological fact, the survival of the group despite the death of the individual. But it may be that the group would not survive as a group (and individual life would not survive, then, either) if these "biological" facts could not be expressed symbolically. We are social and spiritual beings; at some level biological, social, and spiritual life cannot be differentiated.

it, so to speak. The increase is not mysterious or metaphorical: each man really adds to the copper's worth as it comes toward him. But it is important to remember that the investment is itself a gift, so the increase is both concrete (blankets) and social or emotional (the spirit of generosity). At each transaction the concrete increase (the "adornment") is a witness to the increase in feeling. In this way, though people may remember it in terms of blankets, the copper becomes enriched with social feeling, with generosity, liberality, good will.

Coppers make a good example here because there is concrete increase to manifest the feeling, but that is not necessary. The mere passage of the gift, the act of donation, contains the feeling and therefore the passage alone is the investment. In folk tales the gift is often something seemingly worthless – ashes or coals or leaves or straw – but when the puzzled recipient carries it to his doorstep he finds it has turned to gold. Such tales declare that the motion of the gift from the world of the donor to the doorsill of the recipient is sufficient to transmute it from dross to gold.[6] Typically the increase inheres in the gift only so long as it is treated as such – as soon as the happy mortal starts to count it or grabs his wheelbarrow and heads back for more, the gold reverts to straw. The growth is in the sentiment, it can't be put on the scale.

The potlatch can rightly be spoken of as a good-will ceremony. One of the men giving the feast in the potlatch Boas witnessed says as the meal begins: "This food is the good will of our forefathers. It is all given away." The act of donation is an affirmation of good will. When someone in one of these tribes was mistakenly insulted, his response, rather than turning to a libel lawyer, was to give a gift to the man who had insulted him; if indeed the insult was mistaken, the man would make a return gift, adding a little extra to demon-

6. In a typical example from a book of Russian folk tales, a woman walking in the woods found a baby wood-demon "lying naked on the ground and crying bitterly. So she covered it up with her cloak, and after a time came her mother, a female wood-demon, and rewarded the woman with a potful of burning coals, which afterwards turned into bright golden ducats."

The woman covers the baby because she's moved to do so, a gratuitous, social act. Then the gift comes to her. It increases solely by its passage from the realm of wood-demons to her cottage.

POTLATCH: ANOTHER VIEW

by George Woodcock

A ceremonial perhaps even more dramatically characteristic of the Coast culture was the potlatch, the great giving feast which illustrated admirably the close link between the social life of the Coast Indians and the extraordinary abundance of their environment. In describing the potlatch, it is necessary to re-emphasize the high development of the idea of clan or lineage property as distinct from personal property. Winter villages and summer camps might be widely scattered, but in the intervening vastnesses the fishing waters, clam beaches, and hunting and berry-picking grounds were all traditionally attached as property to various clans or extended family groups. Such rights were ancient, deriving from mythical ancestors and rarely relinquished, so that lineages often possessed rights over sites far distant from their existing villages, from which their forefathers had moved so long ago that no one – even in a society with complex oral traditions – could remember the event. Such rights were always owned collectively, though the clan or house chief might appear as titular possessor; it was understood that their produce would be so distributed that no living member of the lineage would be allowed to starve through ill-fortune, sickness, or plain ineptitude. Yet parallel to such collective ownership of the means of production, with its built-in insurances against misfortune, there had developed a degree of private ownership of tangible chattels and intangible rights based on the surplus productivity of a society functioning in the midst of natural abundance.

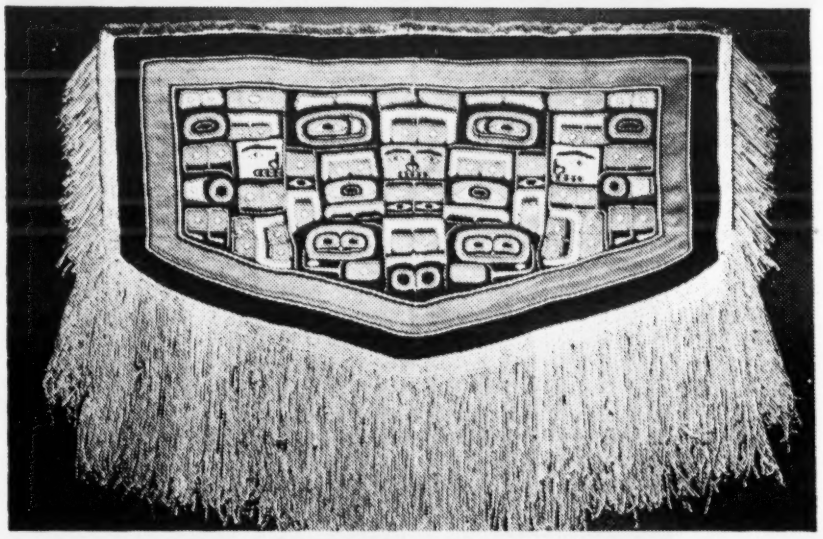
Among tangible chattels, slaves were perhaps the most important. Slaves might be bondsmen for debts contracted and not paid in a society highly conscious of the obligations related to property. More often they were prisoners taken in the raiding wars along the Coast; such prisoners were not absorbed into the victorious tribe by adoption, as happened so often among the Plains Indians, but became the absolute property of their captors and could be used or sold or killed or liberated as their owners wished. It has been estimated – probably with some exaggeration – that in some northern villages as many as a third of the inhabitants were slaves, mostly Salish from around Puget Sound and the Gulf of Georgia, captured in raiding expeditions by fiercer tribes like the Haida and the Kwakiutl.

Canoes, blankets, and carved dishes were also important items of property, while engraved sheets of copper acquired immense prestige, which meant exchange value (sometimes ranging up to 16,000 blankets for a single copper) through being sold from chief to chief at ever-increasing prices. These "coppers" were even given individual names and the most costly gained a fame far outside their owners' villages, which made

Reprinted from **Peoples of the Coast: The Indians of the Pacific Northwest**, by George Woodcock; 1977, 208 pp.; $18.95 postpaid from Indiana University Press, Tenth and Morton Streets, Bloomington, IN 47405.

Every mystery needs its image. It needs these two, the ear and the song, the he and the she, the soul and the word.

strate his good will, a sequence which has the same structure (back and forth with increase) as the potlatch itself. When a gift passes from hand to hand in this spirit it becomes the binder of many wills. What gathers in it is not only the sentiment of generosity, but the affirmation of individual good will, making of those separate parts a *spiritus mundi*, a unanimous heart, a band whose wills are focused through the lens of the gift. Thus the gift becomes an agent of social cohesion and this again leads to the feeling that its passage increases its worth, for in social life at least, the whole really is greater than the sum of its parts. If it brings the group together, the gift increases in worth immediately upon its first circulation, and then, like a faithful lover, continues to grow through constancy.



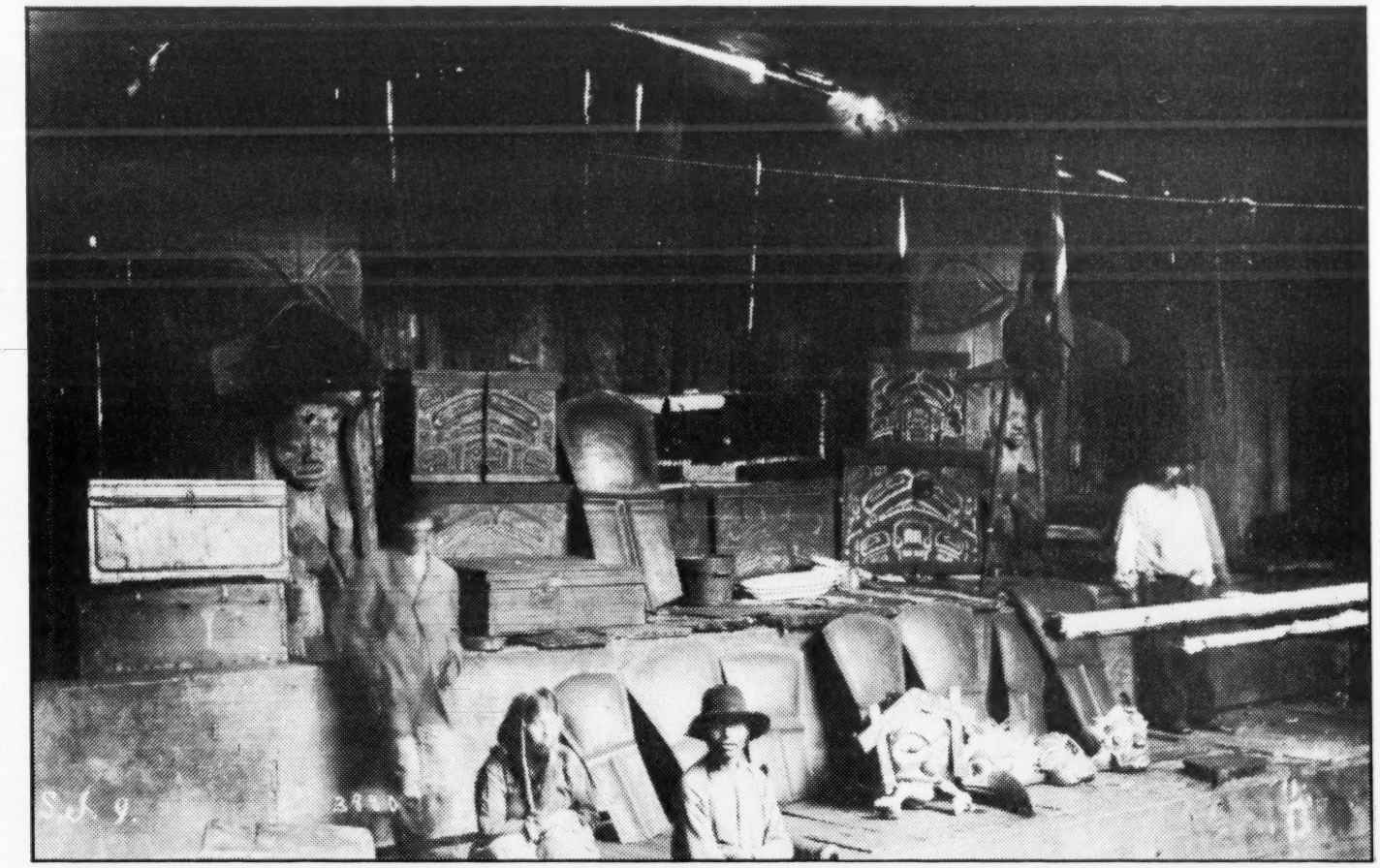
Chilkat Blanket. One of these could take as long as a year to make. Thus the fact that scores of them might be given away in a potlatch takes on added significance. In the H.R. MacMillan Collections in The Museum of Anthropology, University of British Columbia.

I do not mean to imply by these explanations that the increase of coppers is simply metaphorical, or that the group "projects" its life onto them. For that would imply that the liveliness of the group can be separated from the gift, and it cannot. If ambitious chiefs willing to pay all they owned and to run into debt for the glory of possessing them. The greatest glory came from being willing to destroy a copper in potlatch competition with other chiefs; the rival who could not destroy a copper of equivalent value was deeply shamed.

Intangible property among the Coast Indians was in some ways the most valuable property of all, since on its innumerable manifestations depended a man's standing in society; or rather, his seating, since it was where he sat at a potlatch or during a winter ceremonial and the order in which he received gifts that determined his rank and thus deeply affected his honour. Such intangible properties included the rights to names, dances, and songs, to family crests, to membership of certain secret societies, and even to the names of pet dogs. Such rights were rigidly guarded and could be acquired only through inheritance, marriage, gift, purchase, victory in war, or murder.

But rights were inseparable from the obligations that custom attached to them. Possession without validation was pointless, and validation involved the liberal outlay of material property. A chief of the Kwakiutl or more northerly peoples could only dance the dances that supernatural beings had given to his ancestors, or assume his hereditary title, or give his son a prestigious name, or celebrate the puberty of his daughter, or raise a totem pole to record his greatness and his family's legends interpreted in appropriate crests, after he had validated his pretensions by a potlatch feast. At this feast, which might take years of preparation if the chief's obligations were large, the guests would arrive dancing their personal dances and singing their songs on the prows of the great ceremonial canoes. And the host chief would not merely feed his guests extravagantly, sometimes for many days on end; he also gave away as many material goods as he had been able to amass or borrow from his fellow clansmen, matching the gifts to the rank of the recipients. The more he distributed, the greater his prestige; the greater also the shame of his guests if, at their own later potlatches, they failed to give even more magnificently. For, especially in the post-contact years when possessions became more abundant, competition was a feature of the potlatch system, and in this way it became a substitute for physical combat when growing European power on the Coast put an end to the raids which passed for warfare; but the terms of warfare and its rhetoric of hostility and contempt were transferred to the potlatch. The host chief would boast (either personally or through a kinsman who acted as orator) of his own generosity; and he would taunt his guests with their meanness, while his clansmen sang songs insulting the visitors and sometimes even exhibited carved wooden caricatures of them. Guests would be subjected to tests which they had to pass if they were not to lose face, such as drinking in a single draught an immense wooden ladleful of oolichan oil.

Yet, though a chief might temporarily beggar himself by a particularly lavish potlatch, he usually gained not merely prestige but also eventual profit, since a mechanism of economic adjustment was provided by the fact that, for the sake of their own good names, his guests would be obliged to return his gifts with increase whenever



SMITHSONIAN INSTITUTION, PHOTO NUMBER 3880

A Haida chief lying in state. He reposes in the shrouded box against the back wall of his house, surrounded by his wealth of coppers, carved boxes and masks.

they held their own potlatches. Some anthropologists, notably Ruth Benedict, have seen the potlatch as combining the elements of usury and insurance, as well as that of conspicuous spending, in a primitive anticipation of capitalism, but the intangible aspects of the occasion should not be forgotten; it was pride far more than the desire for profit that was being satisfied, and the occasion was always – except in the rare "play potlatches" of the Bella Coola and some Kwakiutl groups – related to the validation of some potent ancestral right.

The occasions when pride was clearly in the ascendant over profit were those in which a chief anxious to show his special superiority and to shame his rivals most effectively would destroy his goods instead of giving them. I have already referred to the destruction of coppers; even more spectacular in terms of prestigious waste were the so-called grease feasts, when the fires within the houses would be fed with great quantities of oolichan grease and valuable canoes were dragged in to augment the flames, while, to preserve their own prestige, the guests refused to abandon their seats as the flames scorched and blistered them. Occasionally at such feasts the house itself would be allowed to burn as part of the grand gesture; and very often slaves, who were mere chattels without rights, were immolated at key points in the festivities.

Such destruction of property must not be seen as an act of genuine renunciation like the burning of his house by a Doukhobor who wishes to show his contempt for material goods. The Coast Indians had the highest respect for material wealth, and for this reason the chief who destroyed it gained enormous respect; the rival whom he challenged to match his achievement, and who failed, would lose so much face – and so shame his lineage – that suicide might become his only escape from social ruin.

At first glance, it seems as though in every way the potlatches expressed and aggravated a desire for individual self-glorification rare among primitive peoples. Yet it should cautiously be remembered that the chief was only the temporary bearer of names and privileges belonging to the lineages, whose prestige was collectively enhanced by his actions – a fact recognized by his kinsmen who would eagerly share in his efforts to gather goods for the potlatch so that the honour of the house and the clan should be sustained. A lack of individualism as we understand it is suggested by the fact that, while still alive, chiefs would relinquish titles and even secret society roles to their recognized heirs, who in the northern tribes with matrilineal systems of inheritance were likely to be not their natural sons, but the sons of their sisters.

The potlatch and similar customs spread down the whole Pacific coast from the Aleutians to the Columbia estuary, and they were imitated by inland tribes as far as the foothills of the Rockies. No ceremonial act in this whole region was recognized unless it had been validated by giving; and even the commoners, dancing their spirit dances among the Salish, would celebrate their initiatory performances by distributing gifts among the witnesses. They still do, as I have experienced by receiving gifts as a spectator, and therefore a witness, in a Vancouver Island long house. ■

The increase comes to a gift as it moves from second to third party, not in the simpler passage from first to second.

the copper disappears, so does the life. When a song moves us we don't say we've projected our feelings onto the melody, nor do we say our lover is a metaphor for the other sex. Likewise the gift and the group are two separate things; neither stands for the other. We could say, however, that a copper is an image for the life of the group, for a true image has a life of its own. Every mystery needs its image. It needs these two, the ear and the song, the he and the she, the soul and the word. The tribe and its gift are separate but they are also the same – there is a little gap between them so they may breathe into each other, and yet there is no gap at all for they share one breath, one meal for the two of them. People with a sense of the gift not only speak of it as food to eat, they also feed it (the Maori ceremony "feeds" the forest *hau*). The nourishment flows both ways. When we have fed the gift with our labor and generosity, it grows and feeds us in return. The gift and its bearers share a spirit which is kept alive by its motion among them, and which in turn keeps them both alive. When Black Elk, an Oglala Sioux holy man, told the history of the Sioux "sacred pipe" to Joseph Epes Brown, he explained that at the time the pipe had first been given to him, his elders had told him that its history must always be passed down, "for as long as it is known, and for as long as the pipe is used, [the] people will live; but as soon as it has been forgotten, the people will be without a center and they will perish."

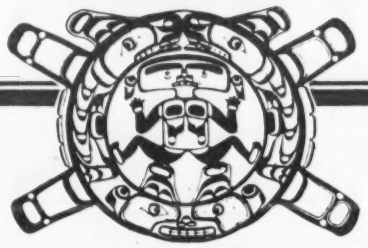
The increase is the core of the gift, the kernel. In this essay I speak of both the object and its increase as the gift, but at times it seems more accurate to say that the increase alone is the gift and to treat the object involved more modestly as its vehicle or vessel. A Kwakiutl copper is a gift, but the feeling involved – the good will of each transaction – is more clearly embodied in the excess, the extra blankets thrown in at the end by each new recipient. And certainly it makes sense to say that the increase is the real gift in those cases in which the gift-object is sacrificed, for the increase continues despite (even because of) that loss; it is the constant in the cycle, not consumed in use. The Maori elder who told of the forest *hau* distinguished in this way between object and increase, the *mauri* set in the forest and its *hau* which causes the game to abound. In that cycle the *hau* is nourished and passed along while the gift-objects (birds, *mauri*) disappear.

Marshall Sahlins, when he commented on the Maori gift stories, asked that we "observe just where the term *hau* enters into the discussion. Not with the initial transfer from the first to the second party, as well it could if [the *hau*] were the spirit in the gift, but upon the exchange between the second and third parties, as logically it would if it were the yield on the gift. The term *profit* is economically and historically inappropriate to the Maori, but it would have been a better translation than *spirit* for the *hau* in question."

Sahlins's gloss highlights something which has been implicit in our discussion, though not yet stated directly – the increase comes to a gift as it moves from second to third party, not in the simpler passage from first to second. This increase begins when the gift has passed *through* someone, when the circle appears. But, as Sahlins senses, *profit* is not the right word. Capital earns profit and the sale of a commodity turns a profit, but gifts that remain gifts do not *earn* profit, they *give* increase. The distinction lies in what we might call the vector of the increase: in gift exchange it, the increase, stays in motion and follows the object, while in commodity exchange it stays behind as profit. (These two alternatives are also known as positive and negative reciprocity.)

With this in mind we may return to a dictum laid out earlier – one man's gift must not be another man's capital – and develop from it a corollary, saying: the increase which comes of gift exchange must remain a gift and not be kept as if it were the return on private capital. Saint Ambrose of Milan states it directly in a commentary on Deuteronomy: "God has excluded in general all increase of capital." Such is the ethic of a gift society. Just as one may choose to treat the gift as gift or to take it out of circulation, so the increase may either be passed along or laid aside as capital.

I have chosen not to allow this essay to wander very far into the labyrinths of capitalism, so I shall only sketch this choice in its broadest terms. Capital is wealth taken out of circulation and laid aside to produce more wealth. Cattle devoured at a feast are gift, but cattle set aside to produce calves or milk are capital. All peoples have both



Capital earns profit and the sale of a commodity turns a profit, but gifts that remain gifts do not *earn* profit, they *give* increase.

and need both. A question arises, however, whenever there's a surplus. If you have more than you need, what do you do with it? What happens to the gravy? Capitalism as an ideology addresses itself to this choice and at every turn applauds the move away from gift and calls that sensible ("a penny saved . . .").

The accumulation of capital has its own benefits, but the point here is that whatever those benefits, if they flow from the conversion of gifts to capital then the fruits of the gift are lost. To recall our earlier tales, when a goat given from one tribe to another is not treated as a gift, or when any gift is hoarded and counted and kept for the self, then death appears, or a hungry toad, or storm damage. Capitalism as a system has the same problems on a larger scale. Somewhere property must be truly consumed. The capitalist, busy turning all his homemade gravy back to capital, must seek out foreigners to consume the goods (though as before they get only the dumb consumption of commodities). And what was a toad in the psyche or storm damage in the tribe now becomes alienation at home or war and exploitation abroad, those shades who follow capital whenever it feeds on the gift.

I have explained the increase of gifts in three ways in this section: as a natural fact (when gifts are actually alive), as a natural-spiritual fact (when gifts are the agents of a spirit which survives the "consumption" of its individual embodiments), and as a social fact (when a circulation of gifts creates community out of individual expressions of good will). In each of these cases the increase pertains to an "ego" or "body" larger than that of any individual participant. Thus to speak of the increase of gifts is to speak of something simultaneously material, social, and spiritual. Material wealth may well be produced in the course of a commerce of gifts, but no material good becomes an item of commerce without simultaneously nourishing the spirit (of the ecosystem, of the group, of the race . . .). To reverse the vector of the increase may not destroy its material portion (it may even augment it), but the social and spiritual portions drop away. Negative reciprocity does not feed the *hau*. To say, then, that the increase of a gift must itself be a gift is to ask that we not abandon the increase-of-the-whole in favor of a more individual and more plainly material growth.

To restate this choice in slightly different terms, a circulation of gifts nourishes those parts of our spirit which are not entirely personal, parts which derive from nature, the group, the race, or the gods. Furthermore, although these wider spirits are a part of us, they are not "ours"; they are endowments bestowed upon us. To "feed" them by giving away the increase they have brought us is to accept that our participation in them brings with it an obligation to preserve their vitality. When, on the other hand, we reverse the direction of the increase – when we profit on exchange or convert "one man's gift to another man's capital" – we nourish that part of our being (or our group) which is distinct and separate from others. Negative reciprocity strengthens the spirits – constructive or destructive – of individualism and clannishness.

In the present century the opposition between negative and positive reciprocity has taken the form of a debate between "capitalist" and "communist," "individualist" and "socialist"; but the conflict is much older than that, an essential polarity between the part and the whole, the one and the many.

Every age must find its balance between the two, and in every age the domination of either one will bring with it the call for its opposite. For where, on the one hand, there is no way to assert identity against the mass, and no opportunity for private gain, we lose the well-advertised benefits of a market society – its particular freedoms, its particular kind of innovation, its individual and material variety, and so on.

But where, on the other hand, the market alone rules, and particularly where its benefits derive from the conversion of gift property to commodities, the fruits of gift exchange are lost. At that point commerce becomes correctly associated with the fragmentation of community and the suppression of liveliness, fertility, and social feeling. For where we maintain no institutions of positive reciprocity, we find ourselves unable to participate in those "wider spirits" I just spoke of – unable to enter gracefully into nature, unable to draw community out of the mass, and, finally, unable to receive, contribute toward, and pass along the collective treasures we refer to as culture and tradition. Only when the increase of gifts moves with the gift may the accumulated wealth of our spirit continue to grow among us, so that each of us may enter, and be revived by, a vitality beyond his or her solitary powers. ■

COURTESY BANCROFT LIBRARY, UNIVERSITY OF CALIFORNIA

Circa 1904: A Tlingit potlatch in Sitka, Alaska. Participants are dressed to the nines, holding ritual objects.

GIFT EXCHANGE: FURTHER READING

A simple start-up library on gift exchange would have to include these four books:

The Gift: Forms and Functions of Exchange in Archaic Societies, by Marcel Mauss; 1967, 130 pp.; $4.95 postpaid from W.W. Norton and Company, 500 Fifth Avenue, New York, NY 10110.

This is the classic "Essay on the Gift," first published in France in 1924. The nephew of Emile Durkheim, a Sanskrit scholar, a gifted linguist, and a historian of religions, Marcel Mauss belongs to that group of early sociologists whose work was still rooted in philosophy and history.

His essay begins with the field reports of turn-of-the-century ethnographers, but goes on to cover the Roman laws of real estate, a Hindu epic, Germanic dowry customs, and much more.

Short – but full of ideas.

Stone Age Economics, by Marshall Sahlins; 1972, 348 pp.; $9.95 postpaid from Aldine Publishing Company, 200 Saw Mill River Road, Hawthorne, NY 10532.

Contains an excellent chapter on "The Spirit of the Gift" which applies a rigorous *explication de texte* to part of the source material upon which Mauss based his essay and goes on to place Mauss's ideas in the history of political philosophy. Turns out Thomas Hobbes had a model of society which certain data from the ethnographers was beginning to call into question.

The Idea of Usury: From Tribal Brotherhood to Universal Brotherhood, by Benjamin Nelson; 1969, 310 pp.; $2.95 postpaid from University of Chicago Press, Department LDP, 5801 South Ellis Avenue, Chicago, IL 60637.

Seems like an oddball in a list of books on gift exchange. The connection is this: the Old Testament contains a "double law" which allows a Jew to charge "rent" on a loan to a stranger, but forbids him from charging it to a friend. The prohibition on usury was therefore an injunction in favor of gift exchange: among brothers the increase on wealth should not be reckoned and charged, it should be treated as a gift.

Nelson's book is a history of the idea of usury – and therefore a history of the idea of gift exchange – from the Old Testament into the modern era.

The Gift Relationship: From Human Blood to Social Policy, by Richard M. Titmuss; 1972, 339 pp.; $3.95 postpaid from Pantheon Books, Random House, 400 Hahn Road, Westminster, MD 21157.

A study of how we handle the human blood which is to be used for transfusions. Titmuss compares the British system, which classifies all blood as a gift, with the American, a mixed economy in which some blood is donated and some is bought and sold.

–Lewis Hyde

Environmental Trends

Environmental Trends *is, by all accounts, the most comprehensive attempt ever made to analyze the state of the U.S. environment. Prepared under the auspices of the President's Council on Environmental Quality and some four years in the making, the report totals 346 pages and includes over 250 four-color charts. Its message is as clear as a summer day in the Sierra: Although the U.S. has made major strides in areas of environmental concern over the last two decades, the hardest, biggest work remains to be done.*

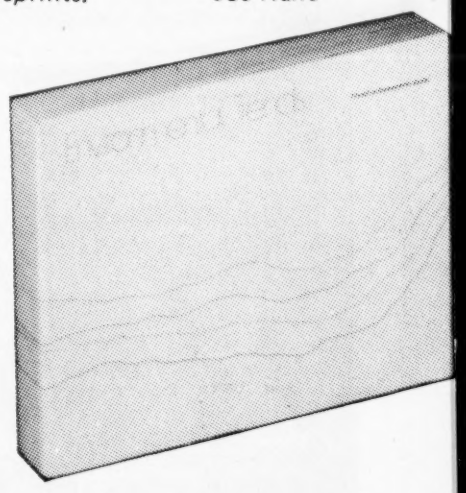
Some examples: Farm output is the highest it's ever been, but farmland is being lost at an overwhelming rate. Residues of DDT, banned in 1972, have decreased, but toxaphene levels have increased. While some wildlife species have increased through conservation efforts, a great many are dangerously close to extinction. The number of oil spills continues to increase. Although 70 percent of the population has sewer service, and 99 percent of those wastes receive some kind of treatment, sewage facilities are the principal source of waterway pollution.

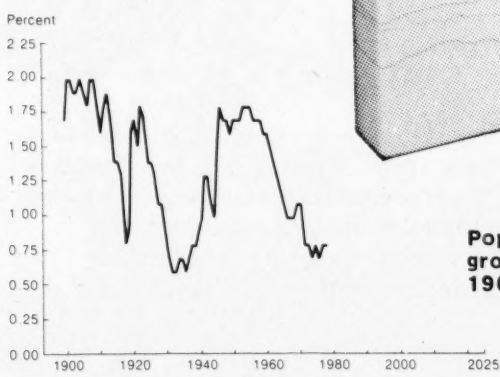
Not exactly what Ronald Reagan and Anne Gorsuch, currently directing the dismantling of the Environmental Protection Agency, want to hear. Small wonder, then, that the EPA all but buried the report when it was released last December. In a move right out of a bad novel, the agency raided the offices of the five federal agencies that participated in the report, used strong-arm tactics to confiscate their copies, then mailed the bulk of them out to local and state offices — which might have been an admirable distribution effort had not the reports been mailed without cover letters, press releases, or any explanation of how they might be used.

Six months later, the report had still not surfaced in federal offices. Phone calls to the EPA officials in charge of the move elicited loud denials of misconduct, but subsequent calls revealed that the EPA had kept no track of where the report was sent and in fact didn't even have a copy in its own library.

Thanks to intense heat applied by Daniel Tunstall, who directed research for the report, **Environmental Trends** *has been in the public eye. Copies are still available. Get one if you want to know just what kind of progress has been made in cleaning up the U.S. environment and what still needs to be done — given the current political climate, there won't be any reprints.* —*Joe Kane*

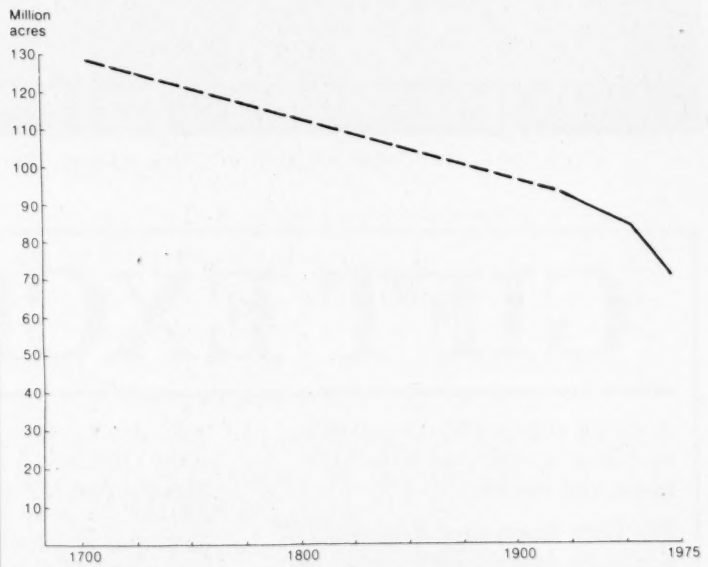
Environmental Trends
Council on
Environmental Quality
1981; 346 pp.
$11 postpaid from:
Superintendent
of Documents
Government Printing Office
Washington, DC 20402





Population growth rates, 1900-1978

The population appears to be growing inexorably — the lines on the charts seem always to go up, but the rate of growth has declined. In 1978, it was only 0.8%. If current trends continue, zero population growth could be reached by the year 2025.

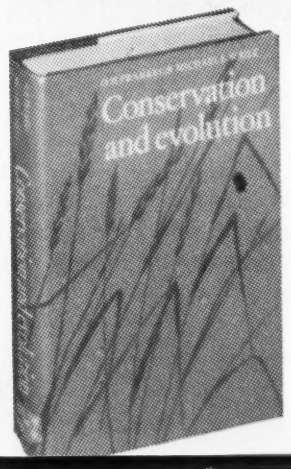


Total wetland acreage, presettlement to 1971

Barely more than half the original wetland acreage remains. In 1971, there were roughly 70 million acres. Since the mid-1950s, an average of more than 600,000 acres of wetlands has been lost each year.

Conservation and Evolution

There is an exciting trend for laymen to aid scientists in the race to save species from extinction. We can gather seed, catalog species in a threatened area, and help to restore habitat that's been destroyed. Here is a state-of-the-art handbook on the biological complexities of species preservation that will be useful to all aspiring Noahs. How do we create "islands" of diversity? How do we ensure that evolution continues in an isolated ecosystem? **Conservation and Evolution** *goes beyond Anne and Paul Ehrlich's* **Extinction** *(***NWEC** *p. 48), a consciousness-raising book, or Norman Myers'* **The Sinking Ark** *(***NWEC** *p. 48), which examines political issues. Authors Frankel, a botanist, and Soule, a zoologist, are writing for scientists in a style accessible to laymen. Their data and recommendations are sure to be cited in the current congressional hearings on the Endangered Species Act.* —*Rosemary Menninger*
(Suggested by Ann Baker)



Conservation and Evolution
O.H. Frankel and M.E. Soule
1981; 300 pp.
$17.50 postpaid from:
Cambridge University Press
510 North Avenue
New Rochelle, NY 10801

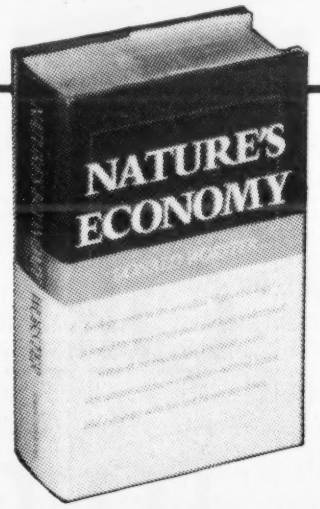
•

Culling may be practised if the density of a species threatens the integrity of a reserve. Whereas culling can be practised to the demographic advantage of a population (Goodman, 1980), the ignorance of genetic principles could cause irreversible genetic damage. There also may be conflicts between behavioural criteria for culling and genetic ones. For example, in the control of overly dense populations of elephants or other large, social species, it has been considered desirable to eliminate entire social groups rather than shoot out an equal number of selected individuals in many groups. The reason is the social disruption and probably the danger inherent in the former tactic. Unfortunately, such a tactic tends to erode genetic variation faster than is necessary since the genetic relatedness of individuals within social groups will usually be greater than the relatedness of individuals between social groups (Packer, 1978).

Nature's Economy

Of all the sciences it is the "new" science of ecology which, with the possible exception of quantum physics, holds out to man the best promise of a re-vision of his place in the world. And of the academic disciplines, it is the "new" study of the history of ideas which seems best suited to creatively disrupting our habitual ways of seeing.

In **Nature's Economy**, *Donald Worster uses the tools of the historian of ideas to give us an elegantly written view of the development of ecology. He traces it from its prehistory in the writings of Linnaeus, Gilbert White, Thoreau, and Darwin; through the early historical ecologists, Merriam, Clements, Tansley, and Leopold; to the managerial economics of "The New Ecology," which dominates the field today. Throughout, Worster insists on three themes: that the study of ecology is, as much as anything else, an exercise in moral discernment; that ecology's history is given shape by a constant tension between two views of man — man as Lord of Creation, and man as creature of the natural order; and finally, in his own words, that "our fundamental task . . . is to choose between these two moral courses, and thus to decide where this science of ecology can and should lead us." Donald Worster's history is an aid to making the right choice.* —*Bob Wilson*



Nature's Economy
Donald Worster
1979; 409 pp.
$6.50 postpaid from:
Doubleday and Company
501 Franklin Avenue
Garden City, NY 11530

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Gilbert White's fame came after his death at the age of seventy-three, and it was based entirely on a single book: **The Natural History of Selborne**. It was published in 1789 and has since then become one of the best-loved books in the English language, appearing in over a hundred editions by the mid-twentieth century. The work is a collection of letters on the wildlife, seasons, and antiquities of White's parish, written in a terse, piquant style that reminds one of Izaak Walton or Horace Walpole. . . .

Year after year he ambled along the same sheepwalks in quest of new butterflies, or watched the swallows building nests in a neighbor's chimney, or crouched among the ferns to spy on the wild ducks and snipe feeding at Bean's pond. The result was a book that laid the foundations for the natural essay in England and America. It was also one point of origin, representative if not seminal, for the modern study of ecology.

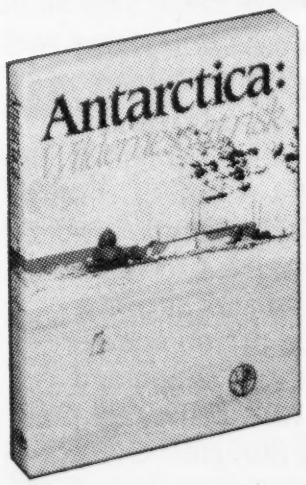
"The parish I live in," White noted, "is a very abrupt, uneven country, full of hills and woods, and therefore full of birds."

•

The moral ambivalence of ecology has deeply affected the conservation movement. Before 1920, the theory and practice of conservation were dominated by the Progressive ideology of utilitarianism; after 1945, conservation became much more amenable to a preservation policy based on ecology. Between these two points stretched a crucial period of transition: a time of debate, professional introspection, and in a few cases, dramatic personal conversion.

Antarctica: Wilderness at Risk

Visit the Earth as another planet, the only "lost continent" we've got, Antarctica. This enjoyable paperback from Friends of the Earth has the wildlife, the people, some of the history, some of the science, and a full sense of the fragility of Earth's coldest desert. —*Stewart Brand*



Antarctica:
Wilderness at Risk
Barney Brewster
1982; 128 pp.
$14.95 postpaid from:
Friends of the Earth
1045 Sansome Street
San Francisco, CA 94111

A mummified seal in the Wright Valley, some 50 kilometres inland and about 300 years old. Seal and penguin carcasses are found in many places in the dry valleys, without any proven explanation.

A solar greenhouse and water-heating experiment near Lake Fryxell in the dry Taylor Valley in 1970. Scientists grew green beans, tomatoes and cornflowers to the fruiting stage. During polar summer, temperatures inside the greenhouse averaged over 20°C.

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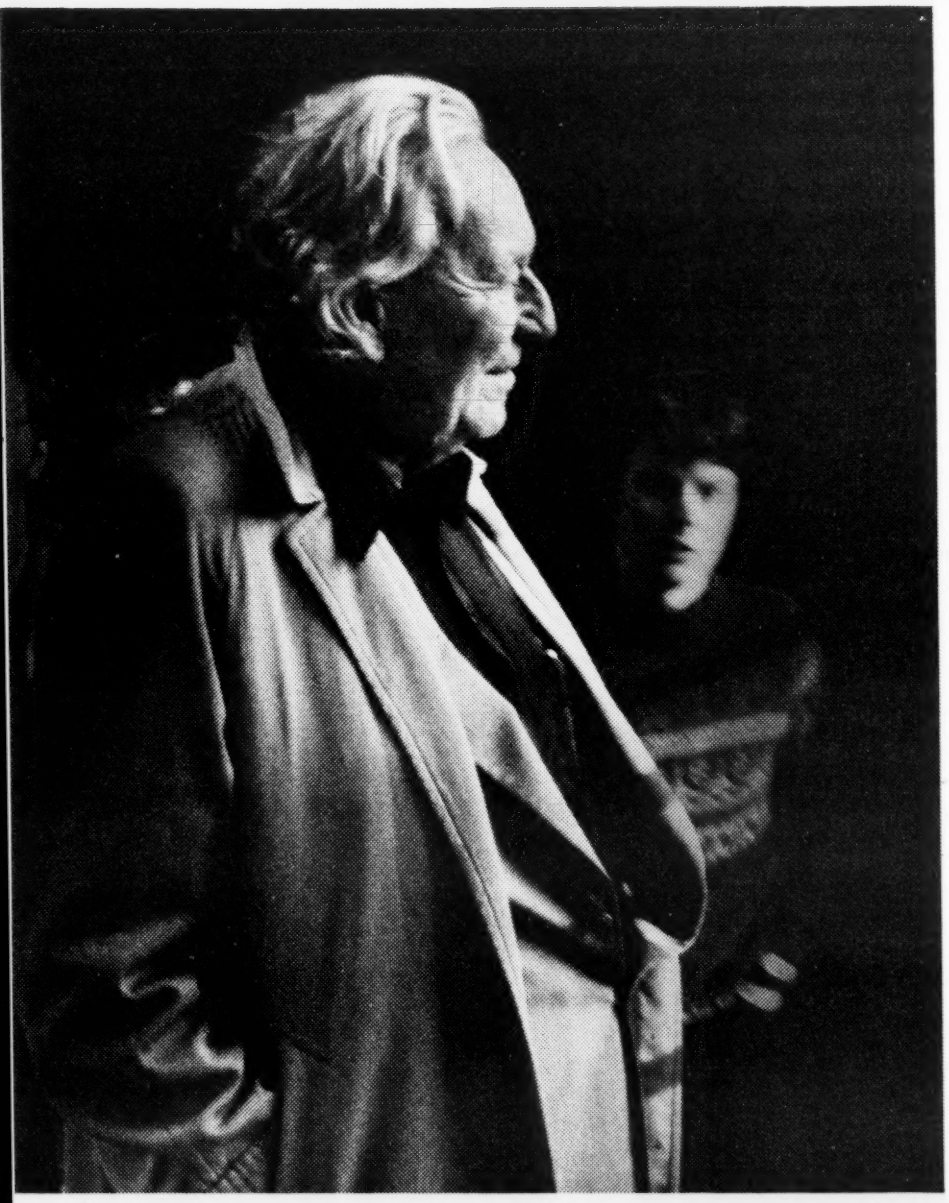
The scientific investigation of Antarctica has been the most successful programme of international research in the history of science. However, it can only be prejudiced by commercial activity on the continent. Exploitation and its consequences would also seriously impair Antarctica's role as a relatively undisturbed scientific laboratory. As a remote wilderness, Antarctica has a unique capacity to serve as a monitor for global pollution levels; its distinction as a free scientific zone could not be maintained if mineral exploitation goes ahead.

Gregory Bateson:

Old Men Ought to be Explorers



KAI DE FONTENAY

Gregory Bateson in Europe, 1979. This is from a film in progress, **The Pattern That Connects**, by Kai De Fontenay, produced by Marlow Hotchkiss. Completion of this film is awaiting further funding.

by Stephen Nachmanovitch

WE KNOW IT IS QUITE POSSIBLE for this world to be destroyed before our children can grow up. We think at once of nuclear war, but that is only the leading edge of a many-sided emergency in which human damage to the Earth is beginning to come back on us.

The danger is not ultimately resolvable on the level of weapons, nationalisms, destruction of animal and plant habitats, of soil, air, water, cities. These individual symptoms all interlock to form a very big runaway system which is the enactment of our own presuppositions, underlying habits of thought deeply embedded in our everyday life as what we call "common sense." Our whole way of thinking and seeing has got to be renovated from the inside out.

It is a crisis of mind. It's a case of wake up or die. We have the whole nightmare-history of political revolutions against bloody regimes, replacing them by still more bloody regimes, to teach us that *that* is not the way out. The only way out is a spiritual, intellectual, and emotional revolution in which we learn to experience as biological facts, firsthand, the interlooping connections between person and person, organism and environment, action and consequence, when we can talk a language that includes the context in each thought. Our present language *excludes* context.

I had a beloved friend and teacher named

Anthropologist, psychologist, biologist, epistemologist, writer of ***Steps to an Ecology of Mind*** *and* ***Mind and Nature: A Necessary Unity****, Gregory Bateson was (is) godfather to most of what I've been up to with* ***CoEvolution Quarterly****. This recent reminiscence by another disciple I've edited to reflect the Bateson not obvious in his own books – Gregory-in-relation. The author describes himself so:*

"Stephen Nachmanovitch is a violinist, composer, and poet. He studied at Harvard and the University of California (Ph.D. in the History of Consciousness), and currently lives in the San Francisco Bay Area. He has taught widely, and is a member of the Guild of Tutors of International College, Los Angeles, in philosophy and music." These days he is arranging multimedia presentations of the illuminated works of William Blake. –*Stewart Brand*

Gregory Bateson, a huge English anthropologist, who exemplified this kind of renovated thinking and seeing. He articulated a body of ideas that shows the links among the symptoms, the weave of the total pattern, and — not answers, but a way of asking better questions, tools for ("Steps to...") thinking our way out.

I want in these pages to paint a portrait, to give some sense of my own experience of him, not just because of who he was, but because he pointed toward something very important, and because who he was and what he pointed to were so intimately related. That is why he is worth writing about and remembering, for he certainly was not interested in personal monuments and memorials, and is probably snorting at me right now from his refuge in the Unconditioned.

We first met in the summer of 1972 on his first and my first day on the redwood-forested campus of the University of California at Santa Cruz. We just sort of bumped into each other on a path. I was a graduate student in psychology seeking to escape the mass-produced educational system at Berkeley. He, in spite of being at 68 a senior figure in half-a-dozen sciences, had never fit a conventional niche in the academic world and was now coming to Santa Cruz as a part-time lecturer. He was physically enormous, slow-moving, with a Jehovah-like shock of white hair and a benign smile that mixed inexhaustible good humor with the sadness of one who's seen it all. The voice was a deeply resonant King's English. We spent some time walking circles round each other, didn't say much. But there was an arresting sense of recognition — of what? There weren't words for it that day, but it's what he came to call "the pattern which connects." The following week I moved down to Santa Cruz to become Gregory's student.

On Independence Day, 1980, at noon, he died, aged 76, in the guest house of the San Francisco Zen Center.

What happened in between, for me, was a permanent shift in how I saw the world, or rather, a sure confirmation of a way that was always in there, in the background, but only in bits and pieces, hints and rumors.

Gregory had a favorite trick for letting a new group of people "get their feet wet" in "what it's all about." I can still see him walk in, towering and gawky in his wild Hawaiian shirt, and somewhat defiantly throw into the center of the table the body of a large crab. With a salacious twinkle in his eyes, he would ask us to pretend that we were Martian anthropologists, that is, intelligent beings (whatever *that* means) who have no presuppositions at all about what "life on Earth" might be or look like. From this point of view, he would ask us to show that this object had been produced by a living thing (whatever *that* means). Over the years he used crabs, seashells, or other remains of organisms; or he would put on the table a painting by Blake or some native artwork from the South Seas or a copy of the Bodhisattva vow to save all beings. But in any case, our job was to start from a concrete object, of a size that we could hold in our hands and turn over, and step by step extract from it (or rather, from our developing relationship with it) an understanding of what it is to be part of a living — and therefore sacred — world. From there it was like opening an infinite series of Chinese boxes (except that each succeeding box contained a *bigger* one!), getting into very abstract, formal, global issues, but always securely grounded to that crab or other piece of data that we could see and hold....

Teaching

Anything I write "about" "Gregory" is in a sense a deception, because there was no Gregory other than Gregory-in-relationship. This carried over so clearly into his way of teaching, which was dramatic (Socratic) rather than expository. As a lecturer, delivering a one-way message, he could be almost incomprehensible unless you already knew what he was talking about. But in small seminars and conferences he was devastatingly effective: becoming one with a group of people he wove together and inspired but who were freely exercising their own powers and ideas, creating a collective self that really *thinks*.

He said, "It takes *two* to know one."

The organic wholeness of the group was paramount. He had zero tolerance for intelligent remarks and showing off. I remember catching hell from him one day after class when I was his teaching assistant: "You monkey!" he said. "I had a nice juicy little silence cooking away in there, and you had to stick your big feet in and muck it up!"

"It" is so hard to talk about not because it's too complicated but because it's too simple. We tend to think of knowledge as a kind of pyramid, with what we learn in our mothers' arms at the base, what we learn in kindergarten at a higher layer, and so on up to the pointy top. We think of "difficult" ideas as being "higher" in the pyramid than "common sense." Now, "Bateson" is taking a cut *below* common sense — a cut more fundamental — to the basic assumptions or axioms that

underlie common sense, the unconscious rules of evidence (=epistemology) we use in courts of law, legislative bodies, university faculties, the media: axioms like belief in materialism (the world is made of "things" and "forces" that act on the "things"), belief in lineal cause-and-effect, in lineal time, objectivity, specialization.

We had, in other words, to unlearn a great deal of what we had absorbed from kindergarten up.

The principal skill he taught was: to see the world not as a collection of things or persons, but a network of relationship, that network bound together by *communication*. This way of seeing is not an abstraction, but a tangible experience that can be cultivated by practice. It is, in itself, one of the answers to the deep crisis of mind that bedevils our civilization.

He taught a lot of bits of information, data from experiments, from experience, from art, from poems and savory quotations he loved to recite, which were in and of themselves important, but they were not "it": They were, rather, "illustrative of 'it.' " They were, he said, "a sort of carrier wave." He had a repertoire of stories, three or four dozen multipurpose parables. Gregory's explanations were built from these stories, combined, inverted, endlinked in various ways, much as giant protein molecules are built from a fixed repertoire of 20 amino acids.

And there were the gaps he left, for that inexpressible, tangible feel for complexity to set in around the table, for the multiple levels of meaning to ripen. Then he recited:

> It was when I said,
> "There is no such thing as truth,"
> That the grapes seemed fatter.
> The fox ran out of his hole.
>
> It was at that time, that the silence was largest
> And longest, the night was roundest,
> The fragrance of the autumn warmest,
> Closest and strongest.[1]

. . . And Looking

Ray Birdwhistell mentions a graduate anthropology seminar of his that

> had been discussing the implications of the film **Trance and Dance in Bali** and the books **Balinese Character** and **Naven,** when a student asked whether Bateson and Mead had a methodology. The other students treated the question as though it had merit and seemed uncomprehending of my "Of course not. They are experienced ethnographers and not technicians."[2]

To date no anthropologist has done anything to quite match **Balinese Character,** Gregory Bateson and Margaret Mead's 1942 photographic record of their fieldwork in Bali in the 1930s. In both their very different careers, they were consistently concerned with transmitting the clearest possible picture of the data, pointing at the experience itself rather than statistical clumpings of experience or inductive projections from experience. Bateson pioneered the medium of anthropological movies, which is becoming an ever more precious record of humanity as the last and remotest of the primitive cultures are finally swallowed by the global money economy.

As I write this I am looking at Gregory's photograph of a magnificent family of African lions. Presence, ease, and grace. They seem to be right here in the room with me. He was a superb cameraman, on both the technical and artistic levels.

The photographer-as-ethnologist (watcher of other cultures) or as ethologist (watcher of other species) must cultivate the skills of using his eyes, of sitting quietly to watch, waiting for hours or months if need be, until the event he wants to study occurs naturally. These are the virtues of the nineteenth-century naturalist, as opposed to the modern lab scientist. They are also Zen virtues.

Both Zen and Gregory's brand of science derive from close observation of how things are rather than how we may want them to be.

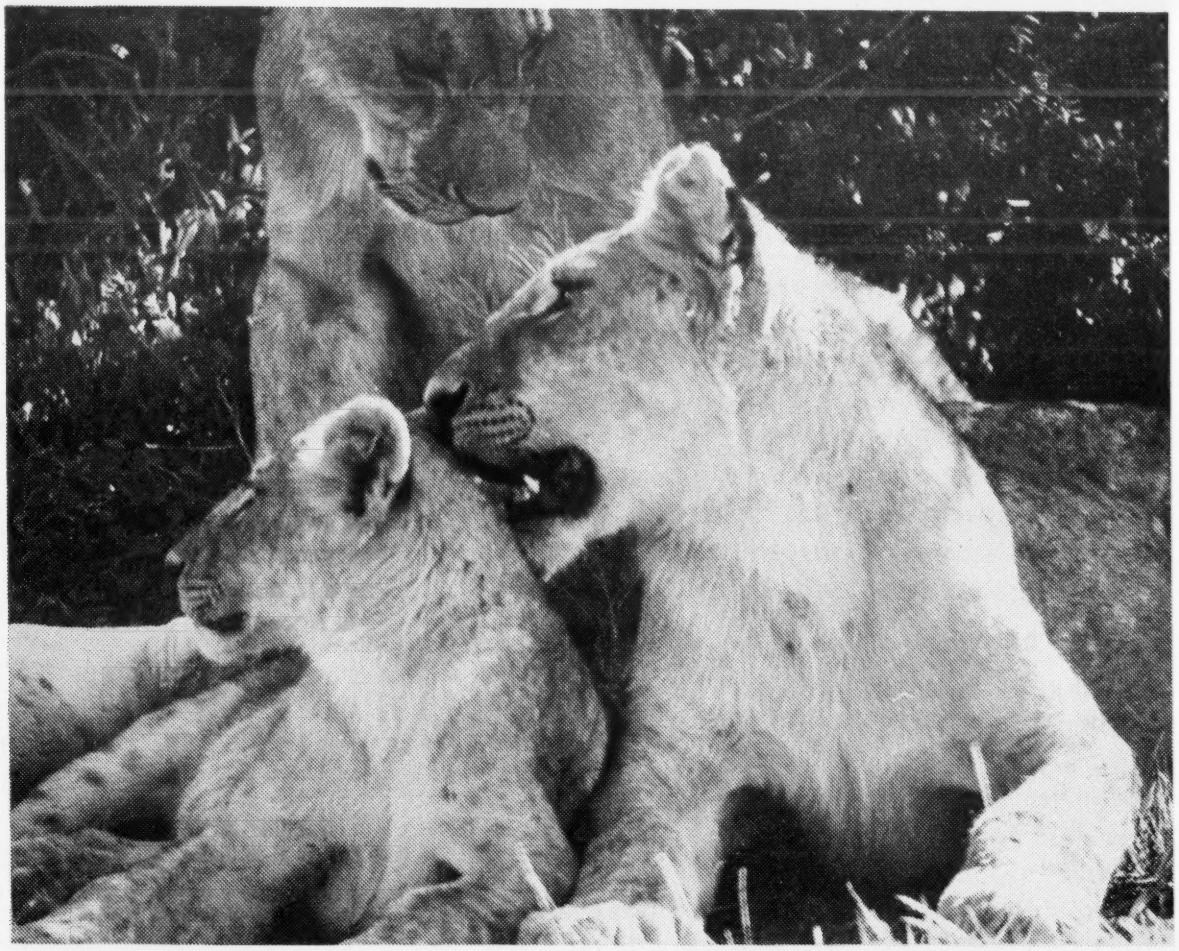
And curiously, when this faithfulness to observation is really followed through, the higher-order abstractions, contexts and contexts-of-contexts, suddenly become seeable and touchable.

Gregory believed that we cannot directly perceive a thing-in-itself without distorting it — there are always multiple layers of neurons and habits, languages and codes, processing and reprocessing the information, filtering it through scarcely knowable physiological, personal, cultural biases. The biases are our epistemology.* He continually quoted Korzybski: "The map is not the territory," the name is not the thing named; and Wallace Stevens:

> They said, "You have a blue guitar,
> You do not play things as they are."
>
> The man replied, "Things as they are
> Are changed upon the blue guitar."[3]

---

*Epistemology normally means the theory of knowledge: How do we know? What do we know? How do we sort our inputs into knowledge vs. trivia vs. nonsense vs. hallucinations, etc.? Gregory and Warren McCulloch transplanted this word into biology, realizing that even a rat in a learning experiment "has" an epistemology, an internalized theory of knowledge that calibrates its perceptual biases. Epistemology thus becomes greatly extended in meaning: the neural filtering that sensitizes a frog's eye to movements of small dots that are likely to be flies, and the cultural filtering that predisposes a person to believe or disbelieve in miracles, or in economic determinism, are both epistemology.



African lions
by Africa.
Photograph by
Gregory Bateson.

He also liked Castaneda's use of the word *glosses*[4] to describe the concepts and images we form of our world, and which, at the price of all sorts of mild or severe pathologies, we mistake for the world itself. The "objects" we perceive "out there" are glosses — marginal comments and explanations — of the real thing. (Inevitably, one evening, one of Gregory's students jumped up and shouted, "WIPE YOUR GLOSSES!")

Culture and personality *punctuate* reality, break it into units which we treat as real. "The big enlightenment," he wrote, "comes when you suddenly realize that all this stuff is *description*."[5] . . .

Armed with his disbelief in objectivity and direct perception, Gregory was paradoxically able to do and teach observational research of the most direct kind. He spent the better part of his life going around the edges of the Pacific, looking in, looking around at the life forms: butterflies, porpoises, religions, social structures. He was a naturalist.

Data for Gregory were generated by a kind of sandwich to be made between the fundamental verities of science and the straight sensations of living, the things the naturalist sees. In his theorizing, he ruthlessly applied Occam's razor (the principle of not multiplying explanatory principles beyond necessity) to slash away at the often meaningless concepts in which social sciences entangle themselves. He was after "simple thinking." He often read these lines from Blake:

> Compell the Reasoner to Demonstrate with unhewn Demonstrations
> Let the Indefinite be explored and let every Man be Judged
> By his own works; Let all Indefinites be thrown into Demonstrations
> To be pounded to dust & melted in the Furnaces of Affliction:
> He who would do good to another, must do it in Minute Particulars,
> General Good is the plea of the scoundrel, hypocrite & flatterer:
> For Art & Science cannot exist but in minutely organized Particulars
> And not in generalizing Demonstrations of the Rational Power.
> The Infinite alone resides in Definite & Determinate Identity.[6] . . .

Gregory held that the corrective for our excess faith in abstract presuppositions is natural history: minute observation of the living world.

Seeing *design* as a sacramental object.

Seeing the definition of *sacrament* as a fit problem for biology.

Seeing the symmetry and segmentation of a leaf or a culture as the immanent presence of some overall pattern — and beyond that, a pattern of patterns. In this sense I came to see why Gregory's work always seemed so concrete and commonsensical to me, for at a very early age I was filled, by my mother, with ideas and feel-

ings of pantheism: forest-as-god, ocean-as-god, cosmos-as-god. The data contain messages, are messages, but above all are a "carrier wave" for messages of a higher order of patterning. *Higher* here does not mean "above" or "separate," it means more *inclusive:* no dualisms, no piety-in-the-sky.

The Bateson way or tao is predicated on monism* — knowledge not being split into science vs. religion and all their subdivisions, the world not being split into God over and against His Creation, not into "Man" over and against the other species. Gregory argued that God is *immanent* in the complexity of the world, that knowledge and learning are immanent in the way a rose grows.

Mind IS nature.

So out goes the ancient mind/body problem that has bedeviled our civilization for so long. Out goes our dominant structure of knowledge: inherited from Bacon, Newton and Locke, Descartes and Aristotle; burdened with dualism, atomism, reductionism, materialism; rushing in with oversimplified questions that produce hopelessly tangled and convoluted answers, answers that split organisms, cultures, and the biosphere itself into little pieces that don't seem to fit together any more. Like Humpty Dumpty in **Finnegans Wake,** or The Giant Albion in Blake. The new science, presently in its infancy, points us to the holisms, to the algorithms of equivalence for mind/body, subject/object, culture/nature, as relativity theory did for matter/energy and space/time.

He felt that in any sort of livable future, our dualisms would be museum pieces, looked upon as monstrous superstitions that nearly killed us.

Gregory loved to brag that he was a fifth generation unbaptized atheist. Under this cover, he was safe to evolve, in his last years, into an honest-to-god spiritual figure.

> Freudian psychology expanded the concept of mind inwards to include the whole communication system within the body — the autonomic, the habitual, and the vast range of unconscious process. What I am saying expands mind outwards. And both of these changes reduce the scope of the conscious self. A certain humility becomes appropriate, tempered by the dignity or joy of being part of something much bigger. A part — if you will — of God. — Bateson[7]

*Gregory believed in one world, an interactive, regenerative whole; but it is seeable in two ways. These ways of explaining the universe he called *pleroma* and *creatura,* gnostic terms he mistranslated from Jung to mean seeing the world as a nonliving system of objects and forces (*pleroma*) or as a living system of form and communication (*creatura*).

The Heart's Reasons

Blake again:

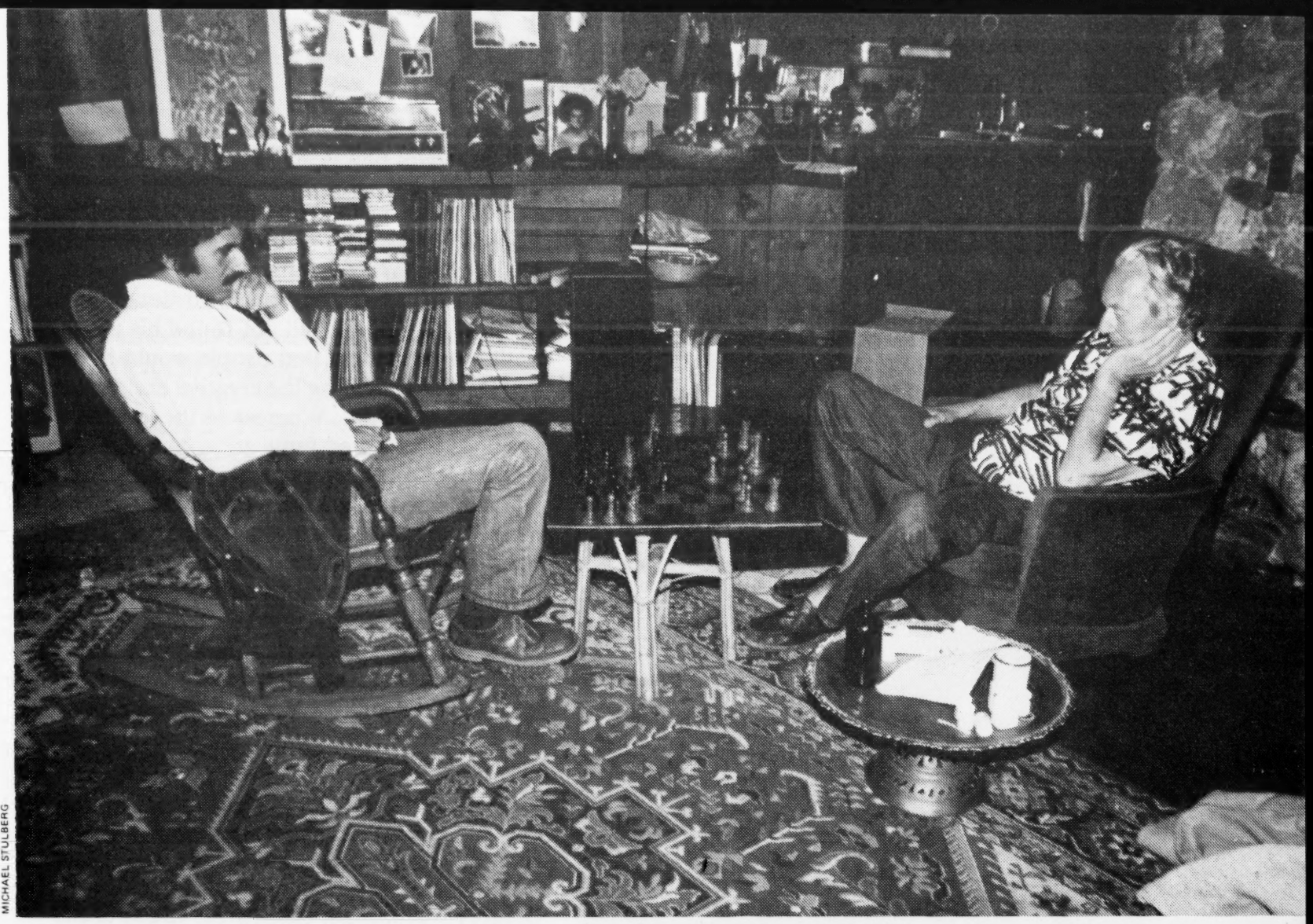
> Men are admitted into Heaven not because they have curbed & governed their Passions or have No Passions,
> but because they have Cultivated their Understandings.
> The Treasures of Heaven are not Negations of Passion
> but Realities of Intellect, from which All the Passions
> Emanate Uncurbed in their Eternal Glory.[8]

Gregory's big laughing belly and sense of humor were so very central to his nature — I remember so many explosions of incredible horse guffaws, snorts, chuckles, grunts, grumbles, growls, and moans of all kinds. And a speaking voice that ranged freely over an octave and a half, flexible and precise, relaxed, an outward and audible sound of an inward and spiritual grace. If Gregory was talking nonsense verse (as he often liked to) the quality of the voice alone was sufficient to transmit his fundamental message, or a reality compounded of relationship, communication, and fused scientific/aesthetic truth. He could be inspiring as a reader of poetry. The delight would just spill over in him as he recited bits of Shakespeare, Blake, Eliot, Cummings, or limericks lifted from Cambridge University toilet walls.

His conferences, books, and papers are there to be read, and should be; but for me, the really important things lie elsewhere. It's how he *felt* about what he was saying that gave significance to it. It was that big heart of his that came through in the voice, that infused his ideas with life. Yet he worried so much about whether the words and content got through. As an intellectual he so wanted appreciation for the elegance of his work and his statements, and showed such glee when he (or someone else!) found a whole new way to say something; while underneath it all, the real meaning leaked through in the music of the voice, unimpeded.

He taught that when you do ethnography, trying to render the materials of one culture into the categories of another, the very first thing that can drop out is humor. So many anthropologists have dutifully collected reams of data, not knowing that their native informants were kidding.

This is because humor, like love, like culture, is almost totally contextual; it is *meta-* to the actual words and actions. When Gregory began to see in the early fifties that the study of context was the vital link between his researches in biology, culture, psychiatry, and communication, his next step was to study *play.* His



MICHAEL STULBERG

Stephen Nachmanovitch and Gregory at the Bateson home, Esalen Institute, Big Sur, California

double-bind theory of schizophrenia is also the double-bind theory of laughter and humor. And creativity.

Someone walked into his office in Kresge College in Santa Cruz and started talking earnestly about researches in higher consciousness. Gregory rolled way back in his chair and sang "Nearer My God to Thee."

He made everything palatable, even the most terrible truths, by his outrageous charm.

Uncompromising. He valued so deeply what he called the critical faculty.* This was manifested both in his shining integrity and his obstinacy. At times he could be stubborn and bigoted, assuming that everyone participated in his own preoccupations and vocabulary. He could get *so* uppity when speaking of people who used words like *impulse* rather than *news of a difference,* or who used words like, supreme horror of horrors, *psychic energy.*

Aristocratic. Intuitive. Maddening. Noble.

Encompassing. Cheeky. Present. Playful. There were times when he was the very embodiment of what he taught. There were times when he was the very opposite. Both poles.

Simplicity of person. Old, comfortable clothes. Shaggy. Pleasure in eating, drinking, sleeping, sitting in a chair, giving and receiving jokes, gifts, and other sorts of information. An easy way of being with children. Easy communication with animals. "Bateson knows something which he does not tell you." Yes he did tell, but in his own koan-language.

He lived with such a sharp awareness and anger at what a "beastly," "monstrous" world this is, balanced/paradoxed by his equally sharp awareness of what an unfathomably pretty world this is: the fearful symmetry of it. The tension can only be reconciled in humor, whether it be sardonic and bitter, or simple delight and whimsy. For while his own resolution of the contradictory voices was creative and benign, this living on the edge of paradox is indeed akin to madness — it is easy for me to see why Gregory had such an intuitive sympathy for the inner world of schizophrenics.

There are algorithms of the heart, precise ones. He recited Blake:

> For a Tear is an Intellectual Thing
> And a Sigh is the Sword of an Angel King
> And the bitter groan of the Martyrs woe
> Is an Arrow from the Almighties Bow[9]

*He told and retold the story of Samuel Johnson's stroke: Johnson was lying in bed when suddenly there was this terrible pain, and lights going off in his head, frightening, so he got out of bed, onto his knees, and prayed to God, do what You will with my body, but please leave my mind intact. Prayers were in Latin in those days. When Dr. Johnson got back into bed, he noticed that the prayer was in *bad* Latin. So he got back down on his knees and thanked God for having preserved his critical faculty.

Gregory was surely cerebral, preoccupied in his critical faculty, yet he could point to that very passionate, wild Englishman, Blake, as the one who knew more than any what it is to be alive. His favorite movies were Marcel Carne's **The Children of Paradise** and Françoise Sagan's **One More Winter,** love stories of unmitigated romanticism. I remember the tears *rolling* down his cheeks one night as we watched **One More Winter.** Significantly, these movies are very French, a culture which for Gregory exemplified Pascal's phrase, "The heart has its reasons which reason does not perceive." The heart's *reasons:* intellect and passion are not opposites of each other, they are simply parts or aspects of a something that is very big. "What is beauty?" I asked him that night. He said, "Seeing the pattern which connects."

Dying

> The roaring of lions, the howling of wolves, the raging of the stormy sea, and the destructive sword, are portions of eternity too great for the eye of man. — Blake[10]

One of the extraordinary things for me, as I look back on it now, was to watch the extent to which Gregory, an old man, grew and changed. After his cancer experience in 1978, when he was told he had a couple of weeks to live and instead got radically better, that undercurrent of sweetness in him, which usually surfaced as a gruff, curmudgeonly kind of charm, began to come out unalloyed. He was readier to hug people. He started writing poetry. He reached a kind of outer clarity about what he was saying — and coincidentally his audience became much broader. Before, he was talking to professionals in anthropology, psychology, and so forth; but now all sorts of people were interested.

When I would visit him at Esalen, our old pattern of immediately jumping into long animated discussions of anything and everything was gradually displaced by hours of sitting together, not saying a word, looking at the shifting shapes in the Pacific or in his fireplace, or playing chess. Deep silence that said so much.

In **Mind and Nature,** he finally stated his contribution to the fundamentals of science and paid his dues to his father, William Bateson, and to the lively and present ghost of Charles Darwin. At Esalen he was beginning to really focus in on his lifelong interests in aesthetics, poetry, religion, education. In his 75th and 76th years, he was in some ways ready to cross over into a whole new sphere of activity. And he was just coming round to the view that it is important not only to propagate ideas, but to act on them.

But he found that to act, to change people's minds, is very much an uphill battle, whether it be with a power structure deeply invested in its materialist premises or with seekers after a new age who are invested in no premises. He simply did not have the energy. One advantage he had enjoyed because he had not found his niche until late in life was that people would fight with him, stimulating the creative excitement of intense discussion. Whereas in the last few years, as his belated fame grew, many of those who came to hear the "great man" would not argue and challenge, were to ready to accept "new" ideas without a struggle. So it was difficult to engage at a deep level. He complained that in the "new age," those who see that the old premises are bankrupt often move into a kind of antintellectual stance of anything goes. "God is not mocked," he quoted from Saint Paul; truth is multifaceted, but it is not just anything. What he wanted was not to be misunderstood *and* not to be uncritically admired.

So toward the end of his life there was a new kind of excitement, and at the same time he was very, very tired.

Gregory was a chain-smoker for much of his life. It is ironic that he produced perhaps the most exquisite study ever done on the nature of addiction: first on the special case of alcohol addiction,[11] then laying the groundwork for seeing how many of the life-and-death social problems we face, the armaments race, economic and ecologic inflation/explosion, etc., can only be understood and handled in the context of addiction.

He had survived episodes of emphysema in 1970 and lung cancer in 1978; during the whole time I knew him he was powering that massive body on a very little bit of lung tissue.

I remember how Gregory used to say that coughing was so much work!

I keep seeing a scene that occurred on many of the mornings of my visits to him during his last year. Esalen is famous for its wonderful hot mineral baths, perched on the rocky Big Sur coast. We would walk back uphill from the baths in the crisp air, slowly; Gregory huffing and puffing, stopping to rest and breathe, cough up some blood, survey that magnificent ocean, spit. He would look at me and say "Hm!" nodding his head assertively, "a good one" (meaning the blood).

Looking out again over the ocean, whose dark, clear-sweeping waves way out to the horizon code so very much information we humans will never understand, he would point out some piece of nature, always different (he knew all the plants and animals by name), that indicated the biosphere as we have known it is confron-

ting death too. We saw otters flapping and playing down there with unbelievable grace and ease. But 20 years ago Gregory saw 50 otters out there, today only five. The kelp was thinner and farther out from shore. The birds were fewer — smaller numbers and fewer species.

Then he would say something about the importance of death in keeping evolution going — recycling matter, ideas, species, civilizations; no matter how fine they might be they had to get cleared away to make room for the next step, "lest one good custom should corrupt the world."[12]

Back in Gregory's 1968 conference on the Effects of Conscious Purpose on Human Adaptation, Anatol Holt said:

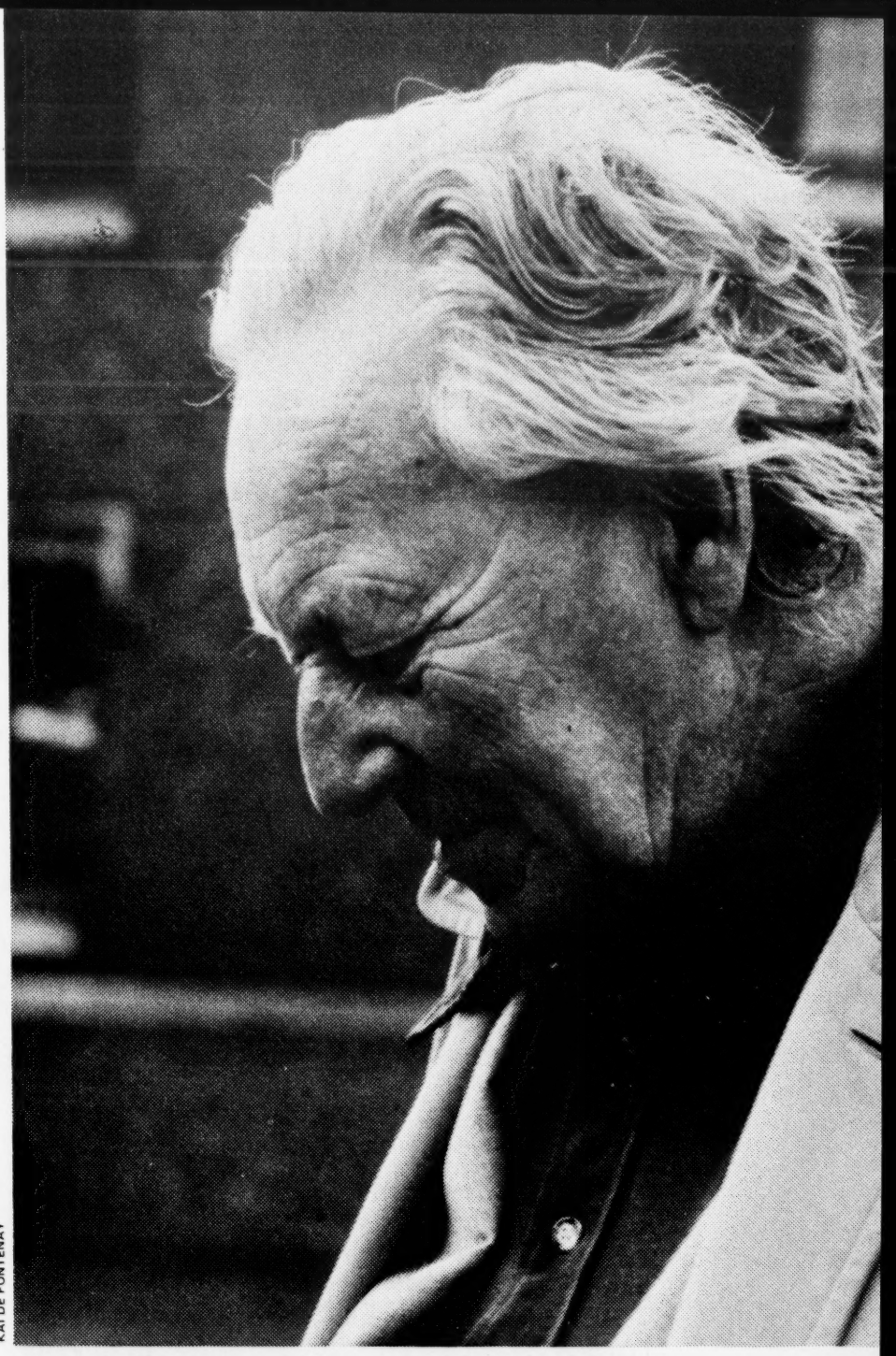
> "All of you will probably remember the disaster that took place in Florence with the floods and the great damage that was done to those stored artworks. I had very mixed feelings about it. I thought, from a certain point of view, that it could well be regarded as good rather than bad; that is — yes, it's an occasion for mourning, but on the other hand, it also makes room. You know, there can only be so many masterpieces in the world, quite apart from the physical space in which they're stored, and new masterpieces must be produced, ones whose relations to your old masterpieces are perhaps hard to understand."
>
> Gregory lifted up the blackboard eraser. "You can't live without this."
>
> "Yes, that's right."
>
> "Which is death."[13]

The otters may have belonged to a dying world, but God how they played! Tossed about by the powerful surf, flipping and swinging around, tossed again and again onto the jagged rocks, they bounced off, ready for more. "They don't give a damn for the rocks!" he said, with that special grin he used for indicating that *here* was a beautiful little piece of data, something to be admired out there in the world, the toughness and grace of a living organism.

It was that particular grin and tone of voice that was the essence of Gregory Bateson.

On June 11, 1980, Gregory's doctor, Michael Stulbarg, telephoned to say Gregory had been admitted to the hospital. The diagnosis was pneumonia. It was expected he'd be released soon. But what developed instead was a month-long final illness. A small group of family and friends came together daily to help his wife, Lois, tend him. Halfway through that time it became clear that Gregory was dying. Finally he was moved to the San Francisco Zen Center, where he spent his last days.[14]

At first he was nicely tucked into his bedclothes (the hospital could never find a bed big enough for him!), very tired but joking and carrying on



KAI DE FONTENAY

as himself. Then the unexplained pain he had been suffering from hit him full on. For days it continued, as did the effects of drugs; he was transformed into a giant naked tormented figure from the Qld Testament, heaving and crying out, "Oh my!...Oh my!..." in a voice that ripped our hearts. Pounding tides of pain alternated with times of relief and quiet smiling that would come through like dazzling sunshine in the middle of it all. It was as if the Earth's rotation had speeded up tremendously, so that the sun seemed to go whirling around — mild days and terrible freezing nights every half hour. Exhausting!

There was incredible passion there, primitively real. I found myself wishing I could take on some of that pain for him. But somehow, Gregory's going did not seem wrong or evil or depressing (as it had during his illness two-and-a-half years before, when it so clearly was not yet time).

Lois, who was such a courageous and wise presence, holding it all together, orchestrating the right kind of support for Gregory, said, "If we can only learn to act as if it's a beneficent universe, everything changes."

Allegory

By Gregory Bateson
May 12, 1979 At The Hermitage

There was once a beautiful lady, whose habit it was to sleep on disused railroad tracks.

In that same country there lived also a brutal surveyor who ran the trains up and down the tracks. He was at heart an explorer and therefore was particularly attracted by those branches of the railroad system where no trains had passed within living memory. These were precisely those tracks where the lady delighted to slumber.

So it happened over and over again that she would be disturbed in her sleep and compelled to retreat hastily while a powerful and smelly engine dashed over the very place where she had been happily resting.

Every time this happened there was a falling out between the lady and the gentleman. He maintained that she was an old-fashioned, trivial, and superstitious thing. She, in return, would spit out insults in a quite unladylike manner saying that he was indeed a thing, subhuman, and nothing but a small boy interested only in silly noisy toys.

And so it went on. For about two thousand years she would always be finding new and unexplored parts of the railroad system upon which to sleep and he always choosing those very branches of the tracks for the exercise of his monstrous vehicles.

He asserted that it was his right — and even duty — to map the railroad system and that the *whole* system was entirely his — especially the unexplored parts of it. He argued that the system was a single, entirely logical-causal network of tracks.

She averred that the tracks were designed for the rest and peace of the human soul and cared nothing for his dreams of causality and logic.

He mapped every detail of the tracks along which he ran his engines. She continually found other parts of the system not yet mapped.

One day the engineer carelessly left one of his maps beside the track and the lady found it. Gingerly, holding it only with the tips of her fingers, she picked it up. She handled it as if it had been left there by the devil.

It was curiosity that led her to open the map, unwilling to see what it might contain and therefore not really looking at its details. Looking at it thus from a distance through half-shut eyes, she was surprised to find that thus half-seen, the document was in itself beautiful.

At the next confrontation between

And that was so. In **Mind and Nature,** Gregory had written,

> I surrender to the belief that my knowing is a small part of a wider integrated knowing that knits together the entire biosphere or creation.[15]

There was no way I could sit and watch him lying there without confronting my own death, whatever shape it may take. I would slip into feeling myself inside his flesh and bones.

One of the first pieces of data he socked me with when I was his student was Blake's eleventh Job engraving, showing Job squirming on his bed of undeserved pain. "My bones are pierced in me in the night season and my sinews take no rest. . . Why do you persecute me as God and are not satisfied with my flesh? . . . Oh, that my words were printed in a Book, that they were graven with an iron pen and lead in the rock forever. . . ."[16] With Gregory's encouragement, I ended up devoting months and then years to exploring all the levels of meaning in those 21 Job pictures, that supreme myth of what suffering is all about. And here was the old man himself, suffering through it in the flesh, and there wasn't a damn thing I could do but help with the feeding and cleaning of him, and witness. Play music for him.

I'm told that Suzuki-roshi, the founder of Zen Center, said, "You learn best from things that are dying."

As they slip away, the dying often become like infants again in the sense that they are nurtured and cleansed by their children, whom they once nurtured and cleansed. But there was something deeper here. As the pain receded and his breath slowed and quieted over the last days, there was an element of exploration and even play in him. He had a way of examining his hand as though it were a brand new thing in the world. Quietly, he explored his new body-of-a-dying-person.

I asked him, "What's it like where you are, Gregory?" "Well, everything's very simple." Big smile.

The sweetness of those smiles was beyond any beauty I had ever seen.

But also the ugliness. Both poles. Very close together.

It was during this time that some of us began practicing zazen. In my own continuing education in "what it's all about," this was very significant. The principal gap left in Gregory's work was this: he showed what's wrong with our conventional dualistic way of thinking, and he articulated the benchmarks of what a better kind of thinking, a better kind of science, might look like. But what's missing is the technology: *how,* once we are adults, to shift our context of thinking. This is just the piece supplied by Zen, which is systematic, practical training in non-dualism. I don't think it was at all accidental that the Zen folks in San Francisco were so at-

herself and the engineer she said without thinking, "And you don't even know that your own maps are beautiful."

At this the surveyor was amazed. He gruffly replied that he was not interested in *that*.

She said to herself "Ah, then there is something in the universe in which he is not interested. That something belongs to me."

"For ever," she said.

After they parted, each considered what had been said. The surveyor was forced to agree that indeed the beauty of his maps and correspondingly the beauty of the railroad tracks were not within his province. She, on the other hand, was delighted and hugged to herself the secret knowledge that he would never invade what she most valued — the elegance and symmetry of the total system. Not its details but its foundations.

At their next meeting he asked whether she was still interested in the so-called beauty of maps. When she rather defensively replied in the affirmative, he said in an offhand manner that he had perhaps something to show her.

He then confessed that while she slept upon the railroad tracks he had come quietly and had made a careful drawing of her body. It was this drawing that he wanted to show her.

He unfolded and placed side by side before her his map of the railroad tracks and his drawing. He said it was "scientifically interesting" that the map and the drawing appeared to resemble each other in many "formal" characteristics. He specially wanted her to see this strange resemblance between the two documents.

She briefly dismissed the matter. She said she had always known *that*. But, saying this, she looked away and smiled. ■

STEWART BRAND

Reader asks impossible question

Who's the "Next" Gregory Bateson, *por favor*?

Jim Cleaver
Boulder, Colorado

tracted to Gregory; or that he, though not a Buddhist, was so attracted to them; or that he and Lois chose to place him in their hands as the fittest way to take care of his dying. They had a quality of being right *with* whatever was happening; rigorous precision *and* open-endedness.

In his last couple of weeks, Gregory found speaking difficult and tiring. His throat was clogged and his articulation weak, and thoughts did not come out "organized." Yet there was a great deal communicated, a sense of peeking around the corner of death, telling us things, with few words but with eyes and smiles more strongly than ever, saying goodby to each person in a special way.

Everyone present during those intense days has their own sense of what it all meant.

He seemed to have lost the ability to make ordinary talk but kept very much intact his way of talking in multiconnective metaphors that establish some truth and simultaneously poke fun at it.

He asked me, "How do you get off the side of this when you can't get off the side?"

"Of the bed, Gregory?" I asked, falling for it.

"Of life." Big smile.

At one moment some people left the room together. He quietly cackled, "They're all in a procession. . .out of body!" Here was this dying man, muzzy and fatigued, yet with his impish grin intact, making fun as usual of transmigration and other supernatural beliefs about death. Many times over the years he said that when you're dead you're dead, living on only in the sense that your molecules recycle to the maintenance of the biosphere and your ideas recycle to the maintenance of evolution. The supernatural and miracles, he liked to say, "are a materialist's attempt to escape from his materialism."

Yet there was another moment, the morning before his death, when he whispered in an arresting tone that evoked complete sincerity, "I think this visit is about over."

He asked me, "Can you speak at the end?"

"Yes, Gregory?" I felt like a little boy.

"Good, because I can't."

My goodby with Gregory was an endless half-hour of reverberating silence, smiling, seeing, pointing. The intensity of that finger pointing at me dwarfs any other experience of my life. I was reminded of the spot on Michelangelo's ceiling where the Elohim's finger points toward Adam's across a little empty gap that seems alive with a million volts of electricity. And that phrase that identifies Zen: direct pointing at the human mind; a finger direct to the human heart. Some kind of pouring was going on. I still don't know how to say it.

Gregory Bateson is not important. What is important is breaking free from the self. What is important is breaking free from our idea of who we are. The powerboys in the world's capitals are not, I think, living out of a conscious desire to kill us all. They are living desperately, out of a fearful entrapment. "They are doing it, so we have to do it," they are saying, and the boys on the other side are saying, "They are doing it, so we have to do it." And I think there is some deep relation between such desperation and the world-eating greed we see around (and in) us. To break free from the glue of self means to break free from piety-in-the-sky, belief that the rules of life, the axioms, are such and such and we have "no choice" but to play the game out to the end. (Blake's phrase for it was "mind-forged manacles.") We can die and break free. But perhaps we don't need to die in order to pour our little-selves out into the larger system that holds us, into the pattern that connects. What is important is to "realize that all this stuff is description," and slip out, each in our own way, from our tiny ideas of who we are.

The Gentle, the Penetrating (wind, wood). I think, finally, of Gregory's ashes in their little cardboard box. A long line of us trailed down to the tidepools below the Esalen bighouse. We were scattered over the rocks like those flocks of seabirds Gregory used to watch on his slow walks up from the baths. Today there was quite a flock of us. Reb, the Zen priest, opened the box and poured some of the ashes out to the ocean. But just then a wind came up and blew the fine powdery white stuff right in our faces. Particles of Gregory clung to hair, eyebrows, moustaches as we climbed back up the cliff. ■

Footnotes

1. Wallace Stevens, "On the Road Home," **Palm at the End of the Mind**, Alfred A. Knopf, Inc., 1971.

2. Ray L. Birdwhistell, "Some Discussions of Ethnography, Theory, and Method," in **About Bateson** (*see book list*).

3. Wallace Stevens, "The Man with the Blue Guitar," **Palm at the End of the Mind**.

4. Carlos Castaneda, **Journey to Ixtlan** and **Tales of Power**, Simon and Schuster, 1972 and 1974.

5. Gregory Bateson, "The Thing of It Is," **Earth's Answer**, Lindisfarne/ Harper and Row, 1977.

6. William Blake, "Jerusalem," **Complete Poetry and Prose of William Blake**, David Erdman, ed., Doubleday, 1973, 1981.

7. Gregory Bateson, "Form, Substance, and Difference," **Steps to an Ecology of Mind** (*see book list*).

8. William Blake, "A Vision of the Last Judgment," **Poetry and Prose**.

9. William Blake, "The Grey Monk," **Poetry and Prose**.

10. William Blake, "The Marriage of Heaven and Hell," **Poetry and Prose**.

11. Gregory Bateson, "Cybernetics of 'Self': A Theory of Alcoholism," **Steps to an Ecology of Mind** (*see book list*).

12. Alfred Tennyson, **Idylls of the King**, Airmont, 1968.

13. Mary Catherine Bateson, **Our Own Metaphor** (*see book list*).

14. Mary Catherine Bateson, "Six Days of Dying," **CoEvolution Quarterly**, Winter, 1980.

15. *See book list*.

16. **Book of Job**, 30:17, 19:22.

Gregory Bateson's Books

For my money, the clearest, most accurate written exposition of Gregory's material is the metalogues (discussions in which the language is isomorphic – similarly shaped – to what's being talked about), the Platonized father/daughter dialogues published over the years and collected in the first part of **Steps to an Ecology of Mind (Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology**; 1975, 517 pp.; $4.95 postpaid from Ballantine Books, 400 Hahn Road, Westminster, MD 21157 or Whole Earth Household Store), and **Our Own Metaphor** by Mary Catherine Bateson (1972, out of print, Alfred A. Knopf, Inc.), her account of her father's 1968 conference on the Effects of Conscious Purpose on Human Adaptation, in which we see Gregory's way of thinking embedded in a matrix of give-and-take with others, a live stochastic process of people and ideas mingling, disagreeing, and coevolving into an open-ended whole.

Books by Gregory Bateson include:

Naven: A Composite Picture of the Culture of a New Guinea Tribe Drawn from Three Points of View; 1958, Second Edition; $6.95 postpaid from Stanford University Press, Stanford, CA 94305.

Balinese Character: A Photographic Analysis, with Margaret Mead; 1942; New York Academy of Sciences. Out of print.

Perceval's Narrative: A Patient's Account of His Psychosis, 1830-1832, by John Perceval, edited with an introduction by Gregory Bateson; 1961; $16.50 postpaid from Stanford University Press, Stanford, CA 94305.

Communication: The Social Matrix of Psychiatry, with Jurgen Ruesch; 1968; $5.95 postpaid from W.W. Norton and Company, 500 Fifth Avenue, New York, NY 10110.

Mind and Nature: A Necessary Unity; 1979; $11.95 postpaid from E.P. Dutton and Company, Two Park Avenue, New York, NY 10016. Or Whole Earth Household Store. (NWEC p. 28)

Other books about Bateson include:

About Bateson: An Introduction to Gregory Bateson, edited by John Brockman; 1977; $4.95 postpaid from E.P. Dutton and Company, Two Park Avenue, New York, NY 10016.

Gregory Bateson: Legacy of a Scientist, by David Lipset; 1980; $18.20 postpaid from Prentice-Hall, P.O. Box 500, Englewood Cliffs, NJ 07632.

Margaret Mead's autobiography contains an account of her marriage to Bateson:

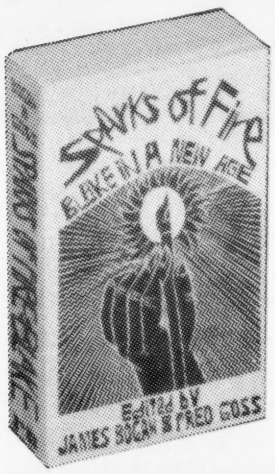
Blackberry Winter: My Earlier Years, by Margaret Mead; 1973; $4.95 postpaid from Touchstone Books, Simon and Schuster, Attn: Order Department, 1230 Avenue of the Americas, New York, NY 10022.

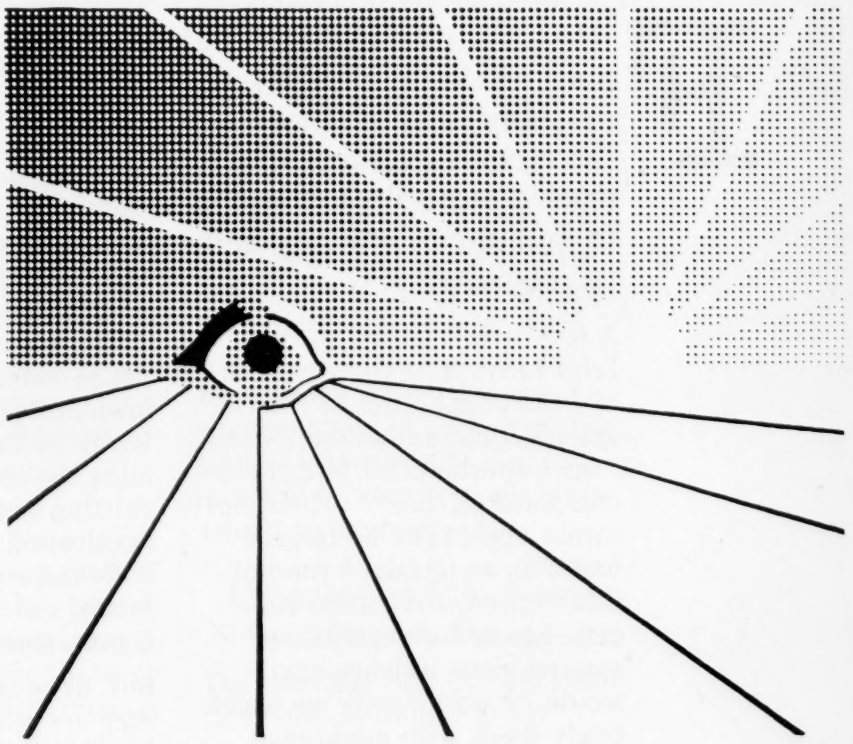
Sparks of Fire

What made Blake such a prodigious and seminal thinker and artist was that he was not there just to be studied or admired – even today, he forces us to take up Vision and create for ourselves. **Sparks of Fire** *is a marvelous anthology of work by over 100 contemporary poets and other artists who have been influenced by Blake. Some of the pieces are about Blake; many are not, but show the authors' inspiration in the Blakean virtues of prophetic exuberance and penetrating vision. There is poetry by Gary Snyder, Robert Kelly, James Broughton, Michael McClure, and Roger Zelazny, as well as poster prints, linocuts, movie stills, cartoons, songs and musical scores, scholarly essays, and sight gags – a very mixed bag arranged with delicacy, intelligence, and pizzazz by editors Bogan and Goss. This is the kind of book you open anywhere, dip into, get lost in.*

–Stephen Nachmanovitch

Sparks of Fire
(William Blake in a New Age)
James Bogan and Fred Goss, Editors
1982; 472 pp.
$12.95 postpaid from:
North Atlantic Books,
635 Amador Street
Richmond, CA 94805
or Whole Earth Household Store





Blakean Haiku

I blake for animals.
Who
be you?

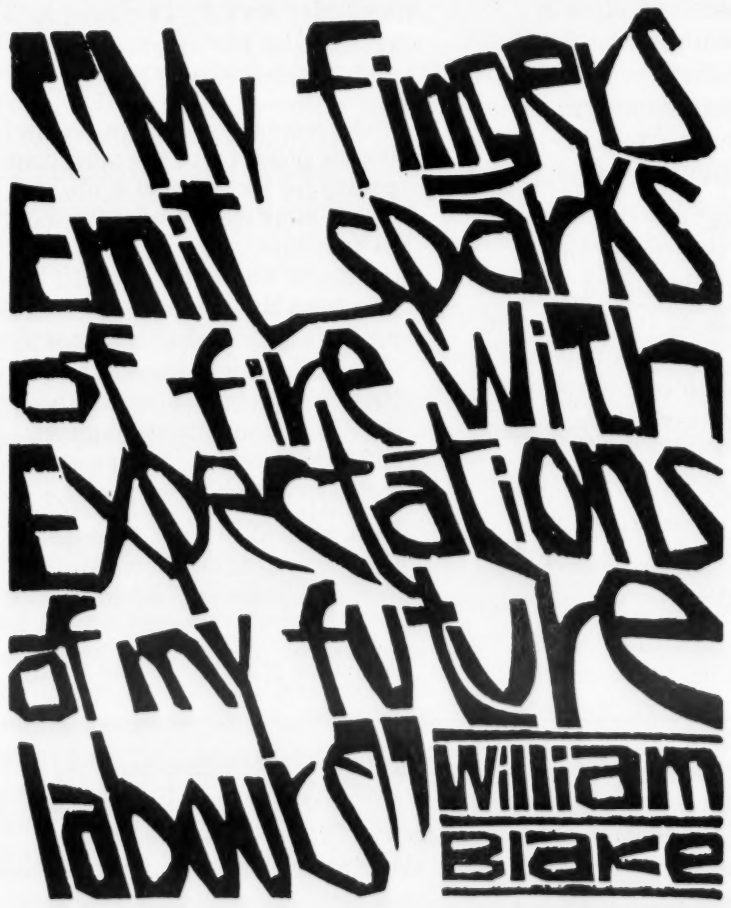
–Robert Creeley

URIZEN
Homage to Blake

Your eyes on
horizon
arise on
your ease in
your reason:

Arise Sun–
your rays on
a rise on
horizon:
You rise on!

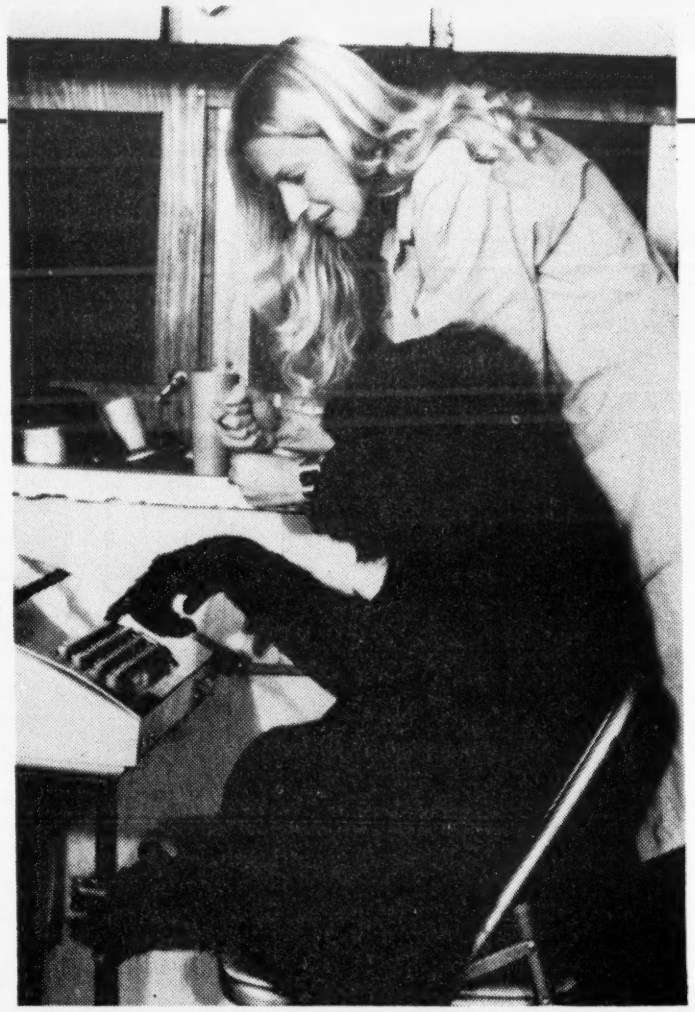
–Victor Flach



Language Acquisition

IN CHIMPS AND DOLPHINS:

Anthropocentrism — Still and Again



Penny Patterson, teacher, and gorilla Koko, pupil. An electric teletype keyboard linked to a voice box enables Koko to "talk."

by Jacqueline Ludel

FINALLY the question must be simply put: what precisely is the point of the various attempts to teach a humanlike language to nonhuman primates and to cetaceans?

A few investigators, such as John Lilly, seem to be enthralled by "the possibilities of interspecies communications"[1] and "the importance of interspecies communications."[2] Their motivation appears to be largely based on an imagined fund of information, sometimes conceived to include ethical and semireligious insights, that would be ours if only we could freely speak with nonhuman organisms. The issue of the existence of such a fund of information aside, two points beg to be made with regard to these investigators.

First, there is the obvious: interspecies communications are commonplace and have been so throughout the history of life on this planet. When a species can neither signal to nor receive from another species information about important events, the likelihood that the two can exist within the same habitat is markedly low. This is most clearly the case when the two species have a prey-predator relationship, but it certainly is not limited to such a situation. If interspecies communication per se were of interest to the investigators, they would consistently be found carefully examining the countless, already existing instances of such communication; they would not be found trying to nurture special instances of such communication.

But, of course, the fact is that they are not interested in all interspecies communication, and this brings us to the second point: What they actually seek is a human form of communication with nonhuman organisms about things that matter to humans. They are entranced, then, by the possibility and importance of anthropocentric communication.

Other investigators may admit similar motives but they emphasize what seems to be a more "scientific" endeavor: they are after a clearer definition and understanding of human language. This quest typically flows from or is intertwined with the interesting proposition that human language may mark *Homo sapiens* as utterly unique creatures. Thus, we have the following kind of offering, this from Herbert S. Terrace, as an explanation for attempting to teach chimps to use language:

> There were many reasons for starting the project, but the most compelling for me was that it might define more clearly what it means to be human. Language and the culture to which it is essential have long been considered the exclusive property of humans. If indeed a chimpanzee could learn to use language in a humanlike manner, the distinction between humans and at least one nonhuman animal would have to be reexamined.
>
> I also wanted to learn, through direct conversation, how another species perceives the world. . . .
>
> It is not unreasonable to assume that some precursor of the ability

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Dr. Jacqueline Ludel is Associate Professor of Biology and Psychology at Guilford College in North Carolina. "As a scientist," she says, "I want to ask unprejudiced questions and ask them caringly." She does that both as a scholar (witness this writing) and as a natural historian. One of her hobbies is studying cetacean beachings (and the human reaction to them) under the auspices of the National Marine Fisheries Service and the Smithsonian Institution. Naiveté, she says, is key to research: "Presume you don't know and begin there." —*Stephanie Mills*

Interspecies communications are commonplace and have been so throughout the history of life on this planet.

> to use language exists in apes, our nearest biological relatives. In trying to converse with a nonhuman, the worst outcome would be failure, but even failure would force us to rethink our own use of language. In seeking what is distinctive about language, we would acquire a better understanding of our nature, and any difference between our and an ape's abilities to use language could be described objectively, without any recourse to a smug sense of superiority.[3]

Let's separate the intertwined themes: the nature of human language and the nature of human beings. If my objective is to explore the nature of human language, several methods of analysis are open to me: I can examine the language itself, with all its variants; I can examine those unusual cases in which humans do not appear to acquire language; I can study the developmental aspects of language acquisition. All this and more is certainly being done. In addition, I might want to consider human language as one example of communication; then it would probably be of interest for me to explore other examples of communication *in their own right*. Afterwards, I might be fortunate enough to notice particular patterns, similarities, dissimilarities, and general principles within and among the forms of communication. What I would not do, however, is expend very much effort attempting to teach human language to nonhumans. Why not? Perhaps the following will make matters clearer.

The Case of Bipedalism

Bipedalism has sometimes been viewed as an important hallmark of *Homo sapiens*. Indeed it has at times been named, along with language, as a definitively human characteristic. As S.L. Washburn stated it: ". . . learning is the crucial factor in the two basic abilities that distinguish humans from all other primates: the ability to walk on two legs (bipedalism) and human speech."[4]

The importance of bipedalism is presumably to be found in the idea that a shift in stance from four-leggedness to two-leggedness frees two limbs for all sorts of activities. Interest is often focused on those of our ancestors who seem to have invented bipedalism. Leakey and Lewin felt that

> By standing and walking upright, *Ramapithecus* would have freed its hand wonderfully. It would have been able to carry things, to learn to throw accurately, to manipulate small objects with undreamed of precision, and perhaps even to invent a language of hand gestures. A whole new world is opened up when a primate learns to walk on two legs instead of four, and the evolutionary force propelling *Ramapithecus* into this unique position must have been pretty powerful because the new stance demands radical restructuring of the pelvis and leg anatomy. We are talking here of *habitual* upright walking, rather than *occasional* bipedalism, something that all apes are capable of, inelegant though it looks.[5]

No doubt, bipedalism is a wonderful and striking invention, warranting attention and investigation (it is at least as wonderful and striking as the inventions of wings, of fins, of a four-chambered heart, etc.). It has certainly received attention and investigation. An appreciation of the required alterations in both anatomy and physiology has been developed; studies of the kinetics of bipedalism have appeared; controversy over the relationship between the invention of bipedalism and the appearance of very large brains has surfaced. In addition, work on the locomotion techniques of various organisms has occurred; out of such work comes an appreciation of underlying principles governing stance and gait. But no one has argued that the appropriate way to study bipedalism is to teach nonbipedalists to walk on two legs. Perhaps the fact that we are not the only natural bipeds that exist or perhaps the fact that we can very easily teach nonbipedalists to walk on two legs has prevented us from putting both feet into our mouths. Bipedalism is best understood by studying bipeds and locomotion is best understood by examining, *in their own right*, different forms of locomotion, but we do not waste much time trying to teach dogs, elephants, and caterpillars to walk on two legs (except for what some evidently consider entertainment purposes). Surely, no one has developed a research program devoted to an attempt to have dolphins walk on two legs; it is obvious that their anatomy will not permit such calisthenics (yet the fact that neither chimps nor dolphins possess the anatomical structures for speaking has not prevented a few from attempting to have them speak aloud!).

The point is absurdly simple: I will learn virtually nothing about bipedalism if I spend my time studying trained two-leggedness, even among our nearest biological relatives. But, somehow, when it comes to language, the point becomes lost. With both feet in our mouths, we insist, relentlessly, that one excellent way of understanding human language is to demonstrate that it can (or cannot) be taught to nonhumans.

Language and the Nature of Human Beings

The assertion that there is something utterly unique about human language has been repeated so often that it has nearly achieved the status of a cliché. Consider the following sampling of comments:

> The varieties of human languages, the ease with which they are learned, and the speed with which they change all combine to distinguish the behavior of *Homo sapiens* from that of the other primates (Washburn).

> In its [the human mind's] development, the critical step must have been the invention of language. Human language is an extraordinary and unique instrument. It differs in fundamental ways from the systems

Koko, her mirror image, and Penny Patterson, who taught Koko to sign. Patterson writes: "Language-using apes have . . . destroyed our confidence about the uniqueness of language and therefore of man."

Koko photos courtesy of the Gorilla Foundation, which fosters programs for the study, conservation, and propagation of great apes, especially gorillas. Membership ($15) and information from: 17820 Skyline Blvd., Woodside, CA 94062.

> of communication of other animal species . . . (S.E. Luria).[6]
>
> The great dividing line in the evolution of communication lies between man and all the remaining ten million or so species of organisms. The most instructive way to view the less-advanced systems is to compare them with human language (Edward O. Wilson).[7]

Such assertions notwithstanding, a very large literature has now developed surrounding the attempts to teach a humanlike language to nonhuman primates and to cetaceans. Much of that literature deals with the subtleties of the training methods, of the data actually obtained, and of the interpretations of those data. Rather than inviting a drowning in details, let's back away a bit from the mass of writings and ask what all the fuss is about.

Imagine, for a moment, that we have uncovered an unequivocal instance of a nonhuman learning and utilizing a humanlike language. Such a momentous finding would reasonably lead us to conclude that the acquisition and use of such language are not species-specific. As a result, we might feel the need to reassess what qualities or traits are distinctive to *Homo sapiens*; we might, on the other hand, simply note that *Homo sapiens* are the only creatures that acquire and use a humanlike language "in the wild." Beyond that, perhaps we would need to examine rather carefully the question of which particular brain structures make a humanlike language possible.

Now imagine that despite years of research, volumes of analyses, and unimaginably complex computer-generated interfaces, we fail to uncover a single, unequivocal instance of a nonhuman learning and utilizing a humanlike language. Such a result might reasonably lead us to conclude that a humanlike language may be acquirable by a human only (i.e., it is species-specific). We might include among the qualities or traits that distinguish *Homo sapiens* from other organisms the use of such a language. We might feel somewhat more confident about our hypotheses concerning which particular brain structures permit humanlike language.

Taken alone, the issue of species-specificity is no barn burner. We do not exhaust ourselves bemoaning the fact that a good deal of what we do is not species-specific. We do, however, seem to become terribly exercised when we are challenged to identify that which is species-specific for humans. In other words, the issue of species-specificity only seems important if we are actually concerned with delineating that which is distinctive about *Homo sapiens*; and the question of whether humanlike language is species-specific becomes supremely interesting only if we have already decided that, indeed, it must be language that distinguishes humans from other organisms.

Taken alone, the question of which particular brain structures permit humanlike language is surely an interesting one, but it is not likely to lead to seriously heated debates. Once again, it is only when we have previously decided that language distinguishes humans from other organisms that the matter is likely to be viewed as profoundly important. The linkage of human distinctiveness-language-brain is a particularly troublesome one that has given rise to all manner of assertions and investigations. It has driven some to attempt to define brain complexity, and we now have a rather substantial, but utterly inconclusive, list of measures of brain complexity: brain weight; brain-to-body weight ratios; cortical-to-subcortical ratios; brain-to-spinal-cord ratios; and on. Despite the lack of any standard of measurement for complexity and despite ample statistics indicating that the human brain certainly is not the heaviest one around (the average human brain weighs three pounds, while the brain of a sperm whale weighs 17 pounds), it has led to the following kind of comment, this by S.E. Luria: "In weight, but above all in complexity, the brain of man is unique." The human distinctiveness-language-brain linkage becomes obvious if we read a bit further:

> One might almost say that in recent evolution of man practically everything else was neglected in favor of increased brain power. Man lost the protective fur of the apes, their early sexual maturity, and many other adaptations useful to lower mammals. In exchange he won the brain and with it the faculty of language, speech, thought, and consciousness.
>
> The central role of speech and language in the development of thought-power and in the success of man as a species suggests that a major part of the evolution of the human brain from that of man's ape-like ancestors must have been a continuous perfecting of the speech centers, which are located on the left side of the brain.

The image is beginning to emerge: the attempts to teach a humanlike language to nonhumans are, for the most part, attempts to define that which is distinctly human. That which is distinctly human is assumed, by some, to be our language and that language is presumably the product of our most prized possession, the human brain. What is at stake finally is self-definition. If no chimp or dolphin ever learns our language,

we shall know who we are. The first chimp or dolphin that learns our language shall force us to scramble for a new self-conception.

The image of humans anxiously waiting to see whether a chimp or dolphin will be the agent of a reevaluation of who we are would be amusing except that it is ultimately tied to a widespread and ugly anthropocentrism.

Our Place

Notice that the attempts to teach a humanlike language to nonhumans are important only as long as we insist on the linkage of human distinctiveness-language-brain. If we manage to set each element free of the others, we can easily arrive at a collection of interesting and potentially answerable questions, such as: Are there traits or characteristics that are distinctly human? What principles underlie the acquisition and use of human language? What similarities and dissimilarities can we find among the brains of different organisms?

The first question is the one that most needs to be considered. What has infected the studies of language acquisition by nonhumans, and a good deal more besides, is a peculiar stance in regard to that question. In effect, the question has been answered almost before it has been asked. A premature answer would actually not be worrisome if that answer were: Of course there are traits or characteristics that are distinctly human; if there were not, we would have no reason to place humans in a particular genus and species. To deny that there are distinctly human traits or characteristics is to deny that taxonomy is based on anything reasonable. It is crucial to recognize, however, that this kind of answer does not make of *Homo sapiens* a special case. We can say, with equal ease and reasonableness, that of course there are traits or characteristics that are distinctly cetacean, or better still, that are distinctly Southern Right Whale.

However, the peculiar stance that has repeatedly been adopted is one that assumes a unique distinctiveness about humans.

"The concept that all living animals can be arranged along a continuous 'phylogenetic scale' with man at the top is inconsistent with contemporary views of animal evolution."

The central issue has become one of discovering, naming, and defending something that sets humans apart from all other organisms along a dimension or within a paradigm that is inapplicable to other organisms. As a result, the human distinctiveness-language-brain linkage has become set in concrete and investigations of any individual element are often viewed as critical, alarming, and potentially dangerous because they ultimately threaten the foundation of our self-definition.

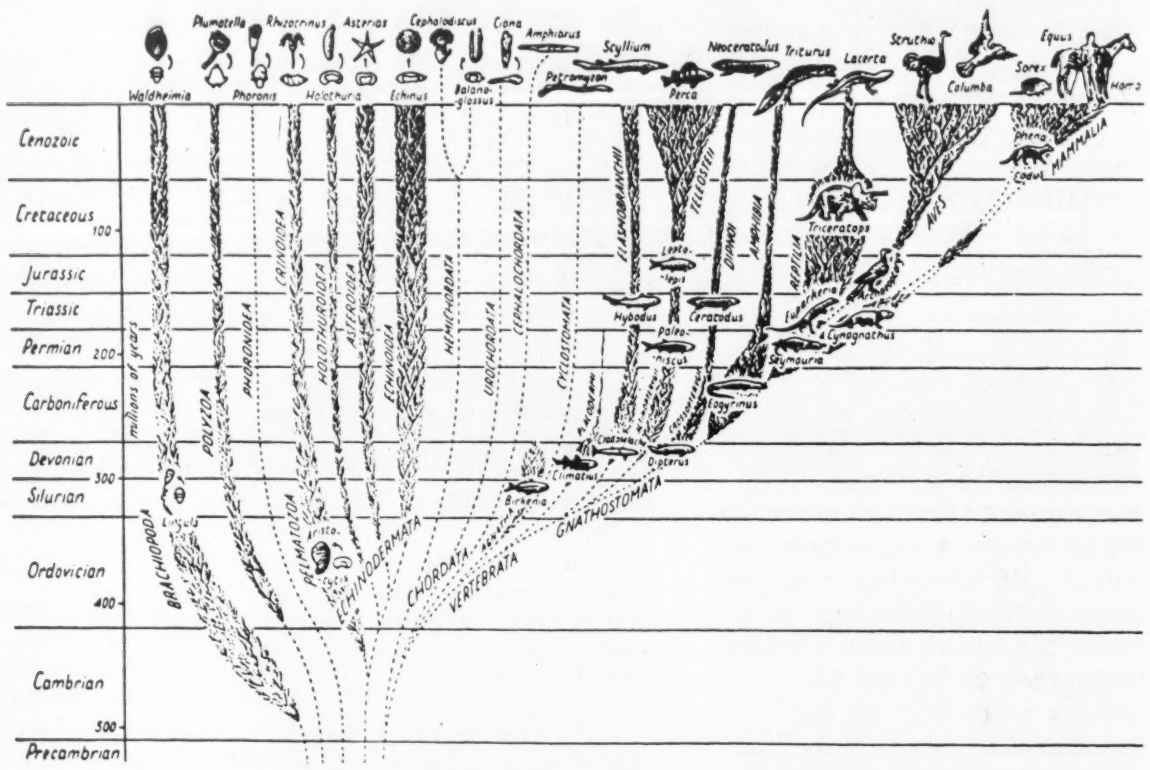
The assumption that there is something uniquely distinct about humans is very difficult to address because it is, at once, so pervasive and so subtle. We will need to remind ourselves repeatedly that there is a universe of difference between asserting that there are distinctly human traits or characteristics which allow us to differentiate humans from other organisms, and asserting that there is something about humans that justifies placing them outside the realm of other organisms. The first assertion is no more or less than an endorsement of the concept of speciation and of the principles of evolution; the identification of the particular traits or characteristics that are distinctly human is a matter of good, careful comparative work. The second assertion is a denial of at least some of the principles of evolution; whether there is any truth or value in it is a matter for elegant, incisive study in a variety of fields. But, sadly, this assertion has remarkably often become so deeply embedded within us that we fail even to recognize its presence. Consider the following, from Jacques Monod:

> A unique event: modern linguists dwell upon the fact that the symbolic language of human beings is of an utterly different order from the various (auditory, tactile, visual, and other) means of communication animals employ. This is no doubt true. But to go from there to maintain that the phenomenon attests to an absolute break in evolutionary continuity – that human language has owed nothing whatever, *even at the very outset*, to a system of various calls and warnings like those exchanged by apes – this would seem a rather difficult step to take, and in any case an unnecessary hypothesis.
>
> Animals, and not only those nearest us on the evolutionary scale, unquestionably possess a brain capable not just of retaining and recording pieces of information but also of associating and transforming them. . . .[8]

Clearly, Monod's attempt here is to separate any claims concerning human distinctiveness from the language-brain linkage. Yet he makes two puzzling comments. First, he states that it "is no doubt true" that human language is of "an utterly different order"; particularly noting the date of his writing (1971), we might well wonder at the boldness of Monod's comment. Even at this date, a substantial amount of study of the various means of communication employed by organisms remains to be done; it would seem prudent to await the results of such studies before certitude so comfortably envelops us.

It is the second comment, however, that demands our full attention; it is the claim that there is an "evolutionary scale." Monod actually introduces this claim much earlier in his book, referring to "this or that species situated higher or lower on the animal scale. . . ."

In 1969, Hodos and Campbell ably demonstrated that work in comparative psychology had been severely hampered by a



Hodos' and Campbell's multidimensional phylogenetic tree suggesting origins and affinities of vertebrates and others. It avoids the linear notion of an evolutionary scale.

confusion between the concept of a *scala naturae* and contemporary concepts of evolution. They began their abstract as follows: "The concept that all living animals can be arranged along a continuous 'phylogenetic scale' with man at the top is inconsistent with contemporary views of animal evolution."[9] They carefully differentiated between a linear, hierarchical classification system (the *scala naturae* or phylogenetic scale) and a branching, diverging classification system (the phylogenetic tree); the former assumes that all organisms can be ranked along a single dimension, while the latter looks to the fossil record for evidence of ancestral lines. The phylogenetic tree explicitly preserves the hypothesis that different organisms evolved at different times, but it contains no hint whatsoever that currently existing organisms should (or can reasonably) be unidimensionally ranked.

Hodos and Campbell were not positing anything startling or revolutionary. As they themselves indicated: "Many of the concepts that will be discussed are not novel; indeed they would be regarded as rather elementary by students of such fields as systematic biology, paleontology, physical anthropology, etc." But the authors were appalled by the frequent references to a phylogenetic scale that appeared in the literature and that had become a means of justifying pigeon-rat-cat-monkey comparisons. They recognized that such terms as *subprimate*, *submammalian*, *higher animals*, and *lower animals* signalled the acceptance of the concept of a phylogenetic scale and that the use of such terms was far from unusual.

We can reasonably expect that the biochemist and Nobel Laureate, Jacques Monod, was more than sufficiently familiar with concepts of evolution not to confuse the *scala naturae* with anything remotely resembling contemporary views of animal evolution. Yet, there he is, discussing an evolutionary (or animal) "scale." And he is not alone. Even a cursory examination of writings in both biology and psychology reveals that the concept of a phylogenetic scale haunts many of those who almost certainly know better. Consider the following few examples, keeping in mind that they are representative of the writings of many others:

E.O. Wilson repeatedly refers to an implicit, or sometimes explicit, phylogenetic scale. Thus he writes about "the higher social insects," "the higher arthropods," "the taxonomic scale," "lower organisms," and on.

Similarly, Douglas Candland and Robert Moyer refer to "the phylogenetic scale," "lower animals," "higher animals," "subhuman forms," and tell us that "if we accept the premise upon which phylogenetic theory is based – that behavior may be seen as a continuing line of development from the simplest to the most complex animals – infrahuman subjects provide us with information on how behavior has developed."[10]

In a volume devoted to the critical analysis of particular attempts to teach a humanlike language to chimps, John Limber offers the following: "One curious aspect of the literature dealing with teaching human language to infrahumans is a lack of concern for the actual structures of human language."[11]

Within a chapter devoted to the biological foundations of physiological psychology (in which evolution is discussed), Robert Levitt refers to the "the phylogenetic scale," "lower organisms," and "lower animal models."[12]

S.E. Luria notes that "Even the highest apes, whose brain resembles man's in many respects, cannot be taught to use words except in a most limited way."

Toward the end of a rather nice introductory volume on evolution, Fred Racle makes reference to "the social behavior of lower animals."[13]

Perhaps two of the most notable examples are provided by the titles of two books by W.D. Russell-Hunter: **A Biology of Lower Invertebrates** (1968, $5.95 postpaid), and **A Biology of Higher Invertebrates** (1969, $7.95 postpaid; both from MacMillan Publishing Company, Order Department, Front and Brown Streets, Riverside, NJ 08075). In the introductions to the volumes, we are provided with some crucial information: "In terms of overall structural complexity and extent of functional integration in each phylum-pattern, the use of the terms *lower invertebrates* and *higher invertebrates* can almost be justified. Paradoxically, however, the most highly

organized invertebrate animals – the large fast-moving, 'brainy' cephalopods (including *Octopus* and its allies) – are built on the molluscan pattern and thus fall in this volume on the 'lower invertebrates.' " Personally, I have some trouble understanding why, for example, echinoderms should be considered to have greater structural complexity and functional integration than gastropods or bivalves, so I find the "paradox" of the cephalopods to be just one instance of an entire group of odd and arbitrary juxtapositions. The whole matter is reminiscent of a facetious question posed by Hodos and Campbell: "Is a porpoise a higher animal than a cat?"

Russell-Hunter's comments do provide us with an important clue. When people refer to a "phylogenetic scale" or "lower (higher) animals," they are not necessarily confused about principles of evolution; they may want to express something about "complexity," without any reference whatsoever to evolution.

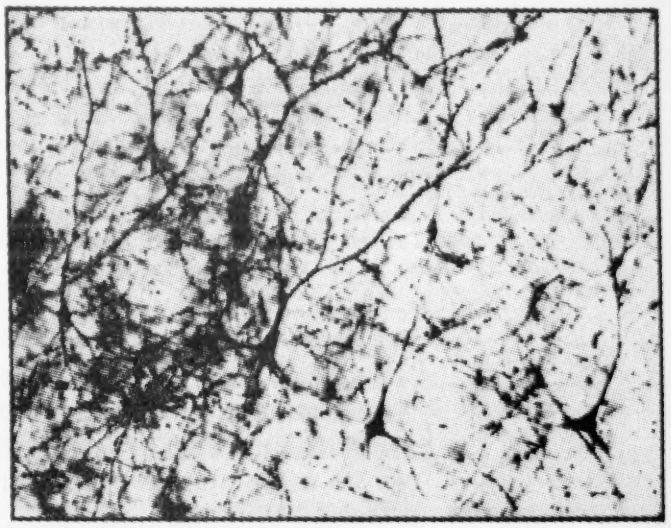
Complexity

There must be at least as many proposed ways of measuring the complexity of organisms as there are proposed ways of measuring the complexity of brains. We might, for example, count the number of tissue layers that are present; we might count the number of organ systems; possibly we should tally the number of different stages in the life cycles. On the other hand, perhaps we should look at the degree of speciation within each genus or the extent of the geographical distribution of a species. Then again, we could calculate the times of appearance of forms in the fossil record. We might come up with an algebraic formulation that expresses the total sensory abilities of various organisms. Obviously, the list could go on endlessly (it sometimes has). It is instructive to note that none of the schemes mentioned would place humans "at the top." It is also important to note that none of the schemes mentioned is ever used when all animals (and certainly not when all organisms) are considered; however, some of the schemes are utilized when particular groups of animals are considered (for example, the first two schemes are sometimes applied to some invertebrates).

When all animals are considered, typically "complexity" is said to be related to behavior. Thus, minimal complexity might be attributed to animals that only display "instinctive" behaviors, while greater complexity would be attributed to animals that also display learning. The logical extension of this is to begin identifying lower-level and higher-level learning and, beyond that, to rank cognitive abilities from the simplest to the most complex. Perhaps all this would be fine if we could demonstrate that there truly does exist a unidimensional "complexity" to behavior that is observable, measurable, and reliable. The reality is that we have no hierarchical ranking of behavior. That reality is particularly apparent in such writings as Louis Herman's chapter devoted to comparing the cognitive, memory, conceptual, and language characteristics of dolphins to such organisms as pigeons, rats, monkeys, human children, and human adults.[14] We simply have no logical basis on which to scale such matters as: the fidelity of auditory memory, spatial working memory, rule-governed behavior in visual and auditory tasks, etc. What we can glean from all of Herman's comparisons is that mammals are more similar to other mammals than they are to birds and that large mammals may be more similar to other large mammals than they are to small mammals. Surely this is not the sort of thing that Monod, Wilson, Candland and Moyer, Limber, Luria, Racle, Russell-Hunter, and so many others have in mind when they appeal to a concept of phylogenetic scale.

What they do have in mind is perhaps best illustrated by the following kind of commentary, from Bernd Würsig:

> If dolphins herd group members in this way, it is likely that at least some of the animals in a group are related. Dolphins have also been seen to help an ailing member of the group reach the surface to breathe and to protect a group member from predators or other dangers. These patterns of behavior have often been cited as evidence of humanlike altruism and of great intelligence. It appears more likely that they represent an outgrowth of an evolved tendency to help related individuals.[15]



Dolphin grey matter: brain cells stained, revealing structural complexity similar to that found in the same areas of monkey and human brains.

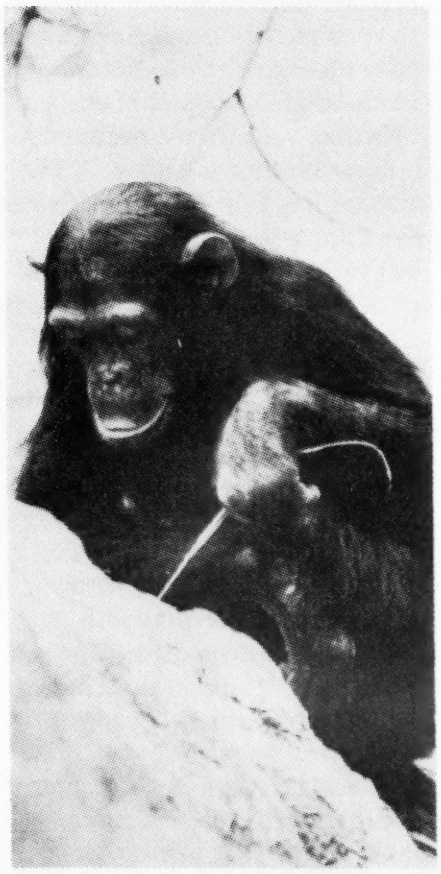
Without engaging in a tangential walk through the extensive literature on altruism, we can note that Würsig's basic assumption is that whatever might account for the fact that dolphins sometimes help each other cannot be the same whatever that might account for the fact that humans sometimes help each other. Without any discussion, analysis, or appeals to special considerations, Würsig puts the issue baldly before us: In the words of Washburn, "Human evolution produced a unique kind of creature." The uniqueness that is claimed is not the uniqueness of any species but rather what we might term a "unique uniqueness" of humans.

It is this "unique uniqueness" that finally lies at the very core of the concept of a phylogenetic scale. Humans have conceived of themselves as being separate from all other organisms along a dimension or within a paradigm that is inapplicable to other organisms. Once that self-concept is present, the concept of a phylogenetic scale seems eminently reasonable even to those who know full well that such a scale has no evolutionary or biological or behavioral basis. Once that self-concept is present, "complexity" becomes

White-sided dolphin fetus bearing a striking resemblance to a human. The reverse could also be true.

We may be forced to concede that anthropocentrism is without reason or merit. And what, then, would we lose?

a matter of degree of similarity to humans (measured every which way, but, no matter, we all know what we really mean). Once that self-concept is present, we are called upon to name that which is "uniquely unique" about us. And we have named it: Language. Now we shall have to defend it or we shall be forced to find another something that sets us apart. (This has occurred before. Not many years ago, *Homo sapiens* were often described as the only tool-using animals. That description fell in the wake of work by Goodall and others. That intense interest in language is at least partially attributable to the discovery that other organisms make and use tools.) The attempts to teach a humanlike language to nonhumans have attracted so much attention because so much depends on their outcome: It is just possible that if language falls the way tools fell, we will be unable to name another something that sets us apart. We may be forced to concede that while *Homo sapiens* are unique just the way any species is unique, we are not "uniquely unique." We may be forced to concede that anthropocentrism is without reason or merit.



Chimp using a blade of grass to prod a termite nest. Jane Goodall's work wiped out tool using as a human claim to fame. Photo by Baron Hugo van Lawick. Copyright National Geographic Society

If Anthropocentrism Dies

And what, then, would we lose? Mary Midgley sheds some light on the possibilities in her own discussion of the confusion between the phylogenetic scale and the phylogenetic tree (she actually prefers the metaphor of a bush):

> Height is a natural symbol for value. Before anybody thought of evolution, this was expressed in the idea of a Great Chain of Being – a scale of creatures reaching from the least to the most important. From inanimate matter the chain led through the simpler living things to the more complex, then on through God. It was eternal and unchanging.
>
> When, however, people began to think about evolution, they made (as commonly happens) no more changes in their ways of thinking than they were forced to. They did not scrap the Great Chain of Being. Instead, they simply unhooked the top end from Heaven and slung it ahead into the future. Its axis now was time. But its associations with value did not vanish. For good reasons and also bad ones, they proved tenacious.
>
> Among the good reasons was the desire to have values located somewhere. In an age of change it became increasingly difficult to locate them in the past; people could no longer confidently say, "It is good because our fathers did it." So they began to say, "It is good because our descendants will do it. . . ."
>
> Among the bad reasons were sheer human arrogance, ambition, and greed, a contempt for other life-forms (unluckily encouraged by some Christian thought) which aspired to the total "conquest" of nature, now that God, formerly controller of the whole Chain, had been deposed. If the hierarchy of values could be seen as linear progress away from other life-forms toward *exclusively* human values, respect for other living things was a waste of time.[16]

What would be lost would most assuredly therefore include a handy justification for: persisting in traditional ways; arrogance; ambition; greed; contempt for other life forms. Note that the qualities would not necessarily disappear; only one means of justifying them would be gone. The fact that humans often continue to behave in ways they cannot readily account for or explain should make us hesitant to believe that the death of anthropocentrism would inevitably result in significant changes in the way we act. The hopes of Carl Sagan, John Lilly, and Mary Midgley, that being required to accept the idea that we are not "uniquely unique" would produce legal, ethical, and moral changes, may be dim hopes indeed. But at least we would be challenged. At least we would have one less excuse for bad science; for despoiling the Earth; for taking ourselves so damnably seriously that creating nuclear weapons comes to seem utterly reasonable; for inventing and relentlessly applying all manner of hierarchical rankings.

What would not be lost would be our fascination with ourselves. Humans have no reason to apologize for finding other humans to be uniquely interesting. But we would have no reason to confuse this trait, a trait inevitably found among conspecifics, with the notion that we are therefore set apart from all other creatures.

What would be gained might include entrance into:

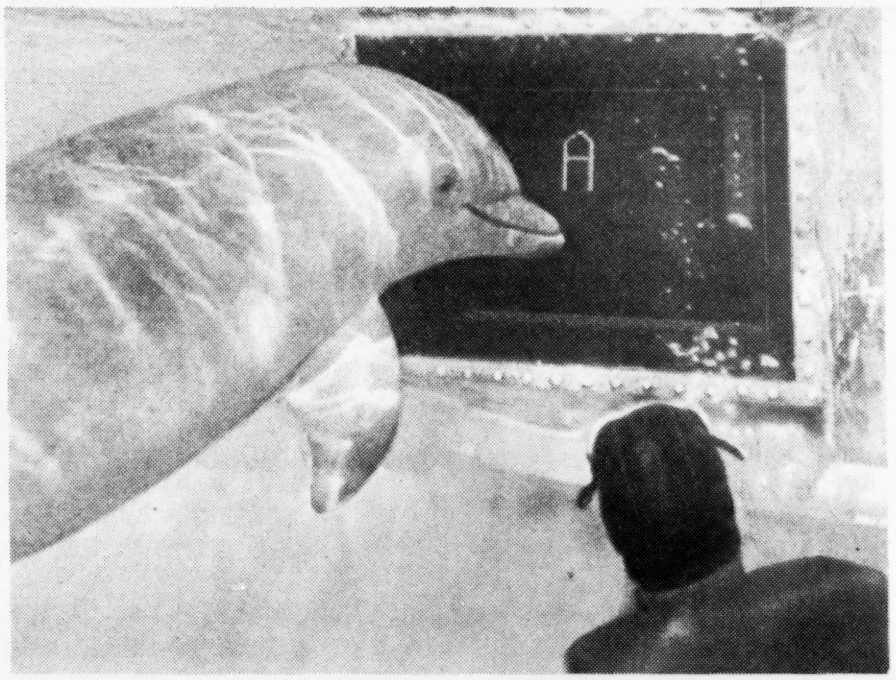
> This world into which Darwin led us. . . . In the world of Darwin man has no special status other than his definition as a distinct species of animal. He is in the fullest sense a part of nature and not apart from it. He is akin, not figuratively but literally to every living thing, be it an amoeba, a tapeworm, a flea, a seaweed, an oak tree, or a monkey – even though the degrees of relationship are different and we may feel less empathy for forty-second cousins like the tapeworms than for, comparatively speaking,

brothers like the monkeys. This is togetherness and brotherhood with a vengeance, beyond the wildest dreams of copywriters or of theologians.[17]

What also might be gained would be freedom from some stultifying preconceptions and freedom from the kind of determined frenzy that, at one and the same time, makes us want to force those nonhuman primates and cetaceans to tell us what we want to know and makes us want to be sure they are unable to acquire and use a humanlike language. As Georges Mounin put it:

> If something more can be learned from these experiments, it is that ideological presuppositions of an era have an epistemological impact on research. When they state as an obvious fact that "man is the only creature with natural language," the Premacks confine themselves, without knowing it, to a vicious cycle that prevents them from accurately stating even the main (preliminary) problems – those of the criteria for communication in particular. They conclude by saying that even after their experiments and the meanings drawn from them, *man's uniqueness in matters of language* is preserved, since chimpanzees are unable to teach language to men. This ultimate argument shows that their presupposition was not just a manner of speaking inherited from the traditional philosophical way of posing the problems of language, but rather a preconceived ideological notion: they are not ready to leave the side of those who wish to maintain an ultimate defensive gap in the debate over radical separation between man and ape. They do not feel free to accept whatever they find – perhaps the existence of an uninterrupted chain of types of communication, becoming more and more complex, between animal and man.[18]

Finally, we might even gain the sensitivity, self-awareness, and wisdom to wince at the phrase *animal and man*, not simply because it is sexist, but also because it is, in the last analysis, racist, foolhardy, and dangerous. ■



Apple personal computer as a medium for creating a new human/dolphin language.

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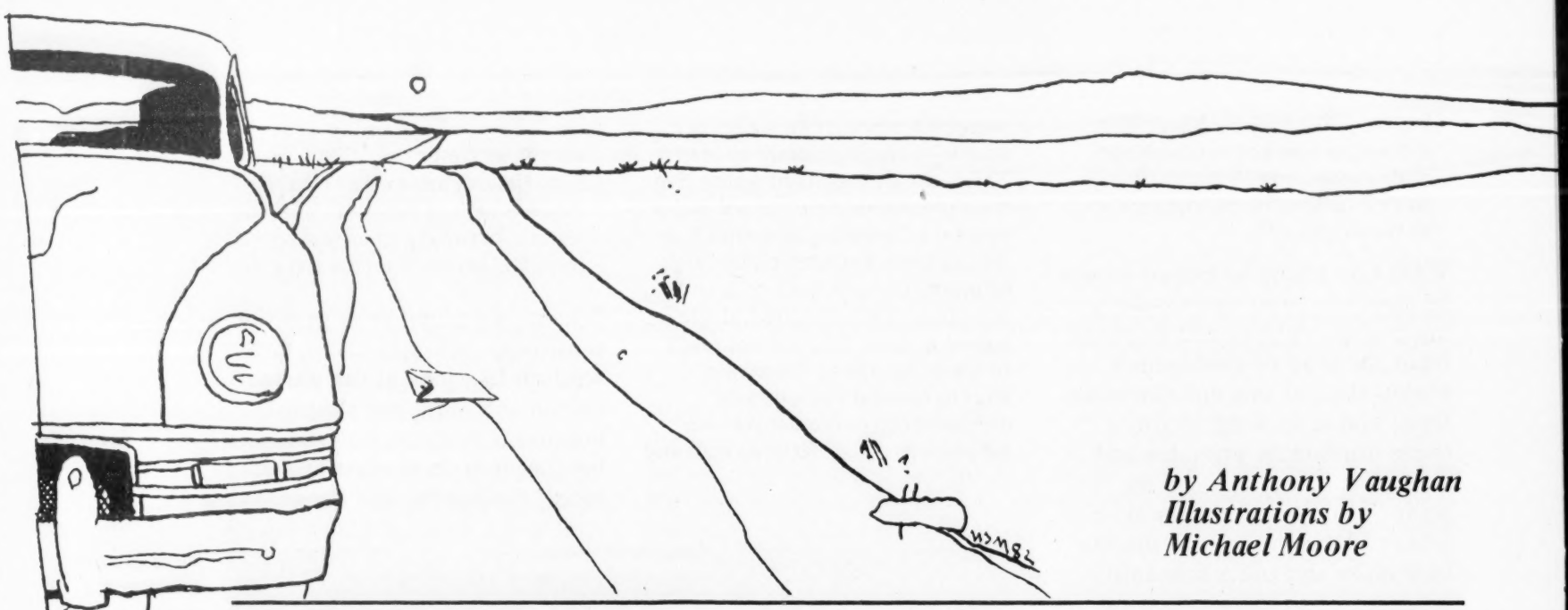
16. **Beast and Man: The Roots of Human Nature**, by Mary Midgley; 1980; $5.95 postpaid from New American Library, 120 Woodbine Street, Bergenfield, NJ 07621.

17. **This View of Life: The World of an Evolutionist**, by George G. Simpson; 1966; $2.15 postpaid from Harcourt Brace Jovanovich, 757 Third Avenue, New York, NY 10017.

18. "Language, Communication, Chimpanzees," by Georges Mounin, in **Speaking of Apes** (see above).



by Anthony Vaughan
Illustrations by
Michael Moore

BABY BABY IS THERE REALLY A WAY BACK HOME FROM TOMORROW?

A fast sundown. 4 minutes. The daylight collapsed. Red mountains. New Mexico — 1966. He waited in the car while she relieved herself behind a bush. So many laws I don't want to be under the influence of — he thought. The night appeared in a single point — absolute nothing between two mountains. Dirt road. Topography with the possiblity of fossils at every glance. Was this the first time? Happy life. She finished, the air full of juniper, dust & oil from the road.

'I love you in your white dress,' — he said. 'Or the yellow socks you stole from your husband.' She climbed into the front seat without a word. Night. Flashlite in the glove compartment. They fished around for a carrot in the shopping bag full of groceries. Crunch. That night it would be a long drive to albuquerque.

NOTE: xkzjay ti boodryxz eklescvabblaam cicquifty bap ni froombledamxz vsip sxcvaquoytp nvvxc kltyipsn rqibit Kneuuu.

LANGUAGE

The door opened
in my sister's
use of the word
'Cowcatcher.'
She arranged herself
in a businesslike
manner
said:
'Even an ear of corn has a
cowcatcher. Even a manila
envelope has a cowcatcher . . . . .'

Anthony Vaughan is a 35-year-old poet-guitarist currently living in New York. He was born there and sojourned for a while in San Francisco, where he performed extensively with a group called the "Palace Monkeys Poets Band." He returned to the city of his birth "to expand his own experience." Vaughan supports himself and his writing by typing, housecleaning, and running a graphic-arts business which is just getting off the ground. Influences on his work have ranged from Li Po to the painter/mail artist Byron Hunt.

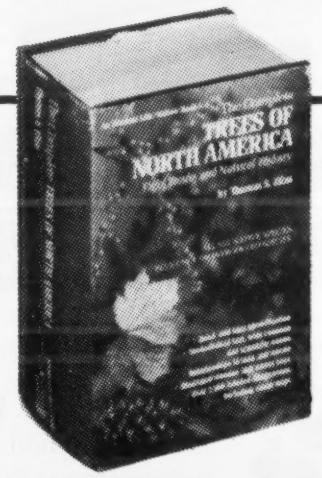
Michael Moore, the artist whose work accompanies Vaughan's poems, has also moved from west to east, leaving San Francisco for Connecticut, whence he launches forays to New York. He says, "I'm trying to find out about New York so I don't worry about it for the rest of my life."

—Stephanie Mills

LAND USE

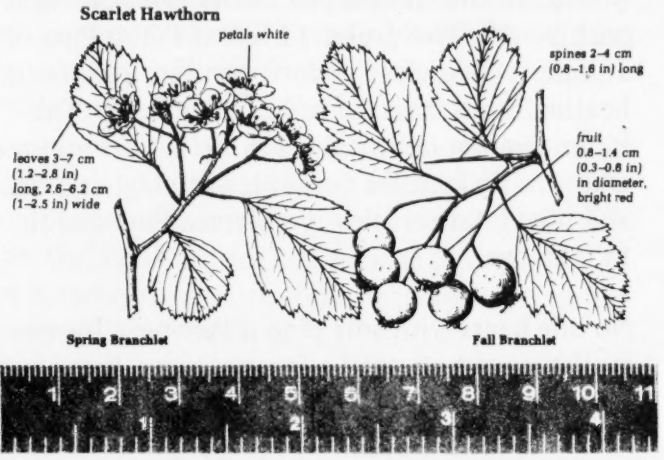
The Complete Trees of North America

Finally there is a tree guide which uses clear English phrases in place of the traditional Latin-derived descriptive words, e.g. "featherlike" instead of "pinnate." The book begins with an introduction which includes a description of North American forests as well as information regarding use of the keys. This guide is unusually complete, including a good many exotic species and some small species. Each individual description includes a map showing range, an illustration drawn from Charles S. Sargent's classic **Manual of the Trees of North America** *(1922, 1962, 2 volumes, $5.50 each postpaid from Dover Books, 180 Varick Street, New York, NY 10014), and useful information regarding most common growing sites and uses of wood or fruit.* —*Ron Wiecki*



The Complete Trees of North America
Thomas S. Elias
1980; 958 pp.
$20.81 postpaid from:
Van Nostrand
Reinhold Company
Order Department
7625 Empire Drive
Florence, KY 41042
or Whole Earth
Household Store

The most practical book for field identification is still Golden's **Trees of North America** *(NWEC p. 89). But when I want to know a lot more about some slow-moving guru, this is where I look.* —*Ben Campbell*



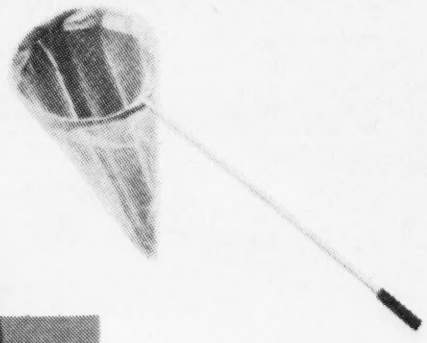
Scarlet Hawthorn *Crataegus coccinea* L.
(synonyms: *C. pedicellata* Sarg., *C. pennsylvanica* Ashe. *C. pringlei* Sarg.)

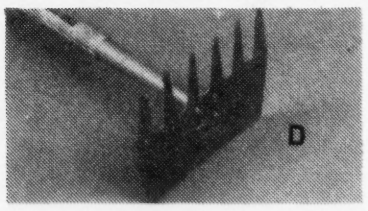
This shrub or small tree ranges from northeastern North America to Minnesota and Illinois, and south to Kentucky. The branches are armed with spines 2–4 cm (0.8–1.6 in) long. Leaves are broadest near the base to almost rounded, 3–7 cm (1.2–2.8 in) long, 2.6–6.2 cm (1–2.5 in) wide, often shallowly lobed on the upper half, coarsely toothed, ***dark green and smooth except for some hairs on the veins.*** Flowers are produced on long slender stalks in many-flowered clusters. Fruits are nearly globe-shaped, usually longer than round, 0.8–1.4 cm (0.3–0.6 in) in diameter, bright red, with a thick flesh.

Forestry Suppliers

*After reading your review of Ben Meadows Company (***NWEC** *p. 126), I'd like to suggest that you list Forestry Suppliers. They offer forestry, engineering, and environmental equipment including hand tools, safety equipment, weather instruments, and surveying gear. While government agencies and corporations are among their customers, they seem happy to serve individuals and small orders. I've had no problems with quality of service, and they have a "guarantee of satisfaction."* —*Greg Ingvaldson*

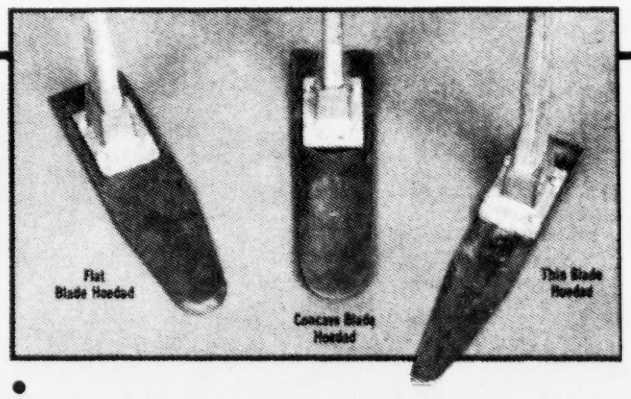
Forestry Suppliers
Catalog (480 pp.)
free from:
Forestry Suppliers
205 W. Rankin Street
P.O. Box 8397
Jackson, MS 39204





- **McLeod**

A combination heavy-duty rake and hoe for clearing a fire line in matted leaves and loose ground debris. Needs to be supplemented with a pulaski or fire rake in rocky or bushy terrain. Hoe edge is 9¾" wide. Six rake teeth are 3½" long each. 4' handle. **$43.95**



- **Hoedads (also called Rindt Planting Hoe)**

Originally designed and used for tree planting in the Northwest, the hoedad is becoming increasingly popular with professional planters throughout all of the U.S. — especially the Southeast.

Flat blade, Regular bracket — Brass, 36" handle; 17" blade, $29.95; 15" blade, $27.70.

- **Professional Insect Nets**

Strong yet lightweight net — polyester or muslin material — for years of collecting service. Aluminum handle is 3' x ¾" dia. Cadmium plated spring steel hoop. Replacement net bags available. 12" hoop size, aerial/polyester, $17; 12" hoop size, med. sweep/muslin, $17.75.

High Limb Chain Saw

Anything that enables me to avoid the humiliation of being afraid of climbing high in trees has my vote. These things work pretty well once you get the line over the branch. My experience has been that the ground-based "logger" should have great care about paying attention because the amputation is taking place right overhead. They come in several models, including a small one for campers. —*J. Baldwin*

High Limb Chain Saw
$9.50—$41.95 postpaid
Catalog

free from:
Green Mountain Products
Muller Park
Norwalk, CT 06852

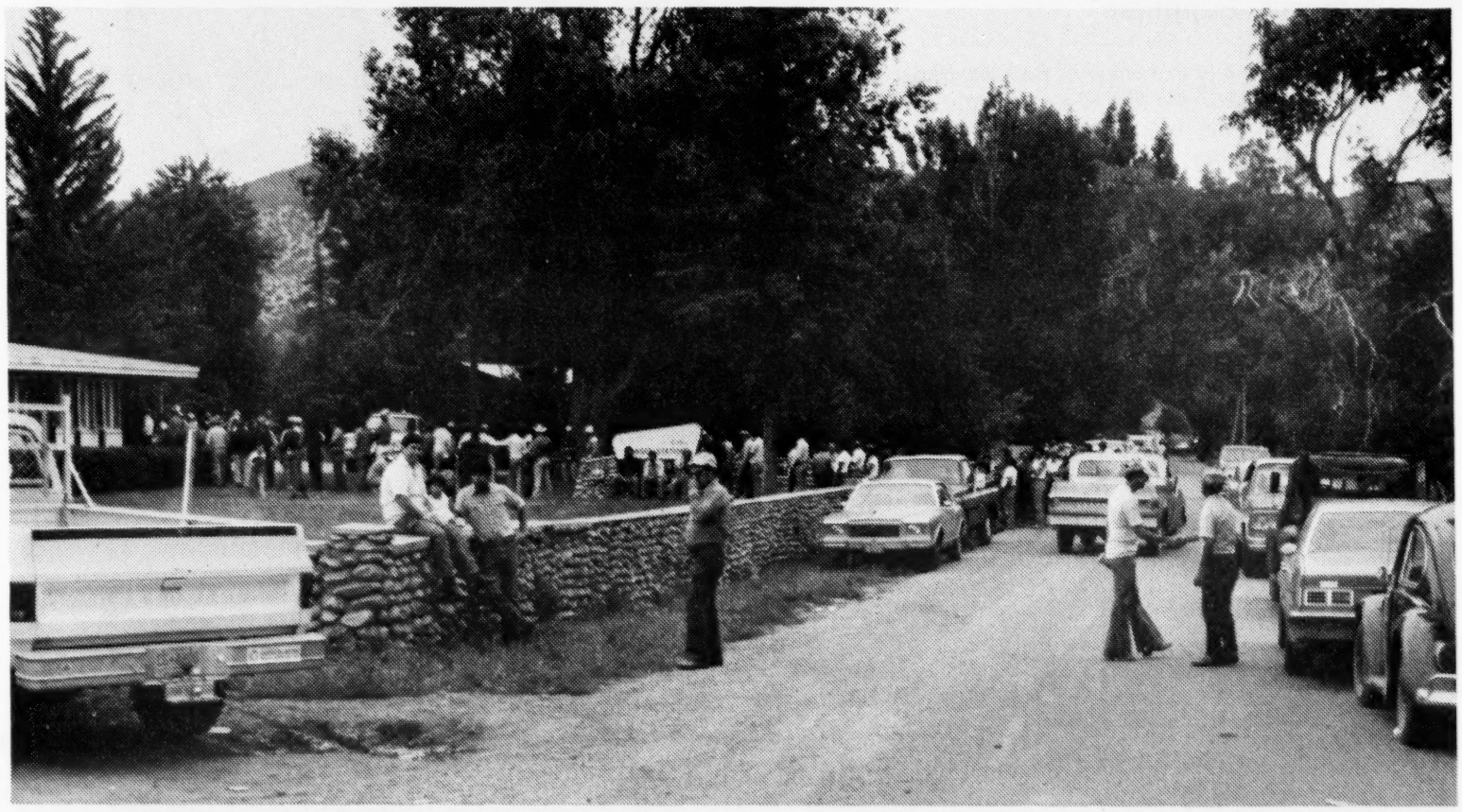
CUTTING FIREWOOD

by James B. DeKorne

EVERY YEAR IN AUGUST comes the morning when summer is over. The vegetation is just as green, the weather just as warm, and everything looks the same as it did the day before, but there is something in the air that says that autumn is here. The message is not exactly a smell, it's more like a cerebral telegram: "Better get ready, winter is on its way." There will be many weeks yet of warm temperatures, and the leaves won't begin to change color for at least a month, but that something like a smell has told you that it's all downhill from here to January. Most city dwellers have never had this sense, but it is not buried so deeply that it cannot be recovered after a few years in the country. It has nothing to do with anything that can be named – it is a *knowing* as natural as the seasons themselves, which never conform to the numbers on a calendar but always come and go when their own time tells them.

In El Rito, New Mexico, the end of August is the beginning of autumn, and autumn is the time of year for harvesting fuel. From now into November the back roads of Rio Arriba County become oversized ant trails, with busy pickup trucks hauling load after load of firewood down off the mesas. In the villages practically everyone heats with wood. The preferred fuel is Piñon Pine or Juniper – two close-grained conifers with far more heating value than the softer evergreens. The Piñon-Juniper belt begins just below the arid mesas and runs up into the foothills until higher altitude and precipitation allow Ponderosa Pine and fir to take over.

No one heats with soft pine if Piñon or Juniper are available, and up until a few years ago there was plenty of it around – only villagers heated with wood in those days, and the supply was always equal to the demand. The Forest Service regarded



Ten a.m., August 15, 1981 — Woodcutters line up to purchase firewood permits at the El Rito Ranger Station in the Carson National Forest. Five thousand cords' worth of live Piñon trees were sold within a few hours. The Forest Service estimates that an equal number of trees are illegally cut each year. With a 200-year growing season, the Piñon Pine is hardly a renewable resource, yet it is being cut more now than ever before. The semi-arid environment of northern New Mexico (El Rito's average annual precipitation is 11.76 inches) cannot possibly withstand such pressure without consequences lasting for centuries.

Yet another Good Thing – burning wood for heat – turns out on close inspection to be a Mixed Thing. Data always demolishes piety (thank God), leading to the finer tuning of behavior that keeps co-evolution co-evolving. For many visitors and former residents of the American southwest the smell of Piñon smoke is the region's strongest memory. If things continue as they are, that's all it will be, a memory. –Stewart Brand

firewood permits as a nuisance, and seldom paid much attention to where you cut it, or how much you took. Since few people have the patience to scrounge for dead wood, they prefer to purchase a green wood permit entitling them to cut up to five cords per year. Five cords is a lot of wood, but green wood, even in our dry southwestern climate, is unfit for burning until it has dried out for at least a year.

In recent seasons the rising cost of home heating fuel, plus the wood-stove industry's touting of wood as a "renewable resource," has increased the pressure on New Mexico's Piñon-Juniper crop by a geometrical ratio. Thousands of cords are now harvested where only a few hundred were cut five years ago. Now officials in Forest Service vehicles are posted at every crossroad to check wood permits as the highways groan under the weight of uncountable pickup loads of green Piñon. Commercial woodcutters with semi trucks drive from Dallas, Houston, and even as far away as Los Angeles to cut firewood for consumption in condominium fireplaces.

I quit cutting green Piñon several years ago for the same reason that I stopped hunting in 1971 – the trees have enough of a survival problem without me getting into the act. The higher mountain forest is full of Ponderosa Pine logs that are thinned out each year to give elbow room for the larger trees to reach commercial size. These pine thinnings are free for the hauling, and every August I throw my chainsaw into the pickup truck, and with Charlie, my devoted red mongrel, head off for the forest.

There's something about being in the woods with grimy equipment that brings out a man's aggressiveness. First, there's the chainsaw: what a Harley-Davidson is to a Hell's Angel, a chainsaw is to a woodcutter. With all of that trigger-activated racket it becomes a motorized Tommy gun through which to express one's machismo. Worn smooth from years of faithful service, the once-yellow grip and trigger are bare metal, and the engine housing is scratched and oily; to pick it up is to hold an old and familiar weapon – the work-marred veteran of countless encounters with the trees. Wearing a scarred hard hat and leather gloves, with my battered pickup truck as the perfect stage prop, I rev up the saw and swagger into an advertisement for maleness itself. I used to chew tobacco as a final touch, but became ashamed of myself – it's too easy to forget that these masculine illusions are the same force that has transformed a virgin frontier into shopping malls and parking lots.

Bucking wood is the kind of work that calls for a break every hour or so. The silence of the forest is louder than the chainsaw, as lying against a log I watch thunderheads swirling within themselves above the trees. Charlie dog is panting next to me as if ready to burst from his pursuit of the myriad forest creatures, and we both rest up for the next act: he was doing his wolf thing, and I was playing Clint Eastwood as a lumberjack. But for now, during the break, he's just a tired-out pooch, and my thoughts wander from Eastwood to firewood, and how many years it takes a tree to become a log.

There's a recurring memory from the days when I cut green wood – I'd just felled a tree, and then stopped to eat lunch before I bucked it up into log rounds. As I rested next to the severed trunk I idly counted its annual rings and discovered that the Piñon was over 200 years old. I imagined it as a tiny seedling when Washington wintered at Valley Forge. The Indians had already left El Rito, and the Spanish had yet to arrive. No one lived anywhere around here then. The tree was just a sapling when Thoreau was at Walden Pond, and even now, as trees go, it was not particularly large – I'd get about a week's worth of heat out of it in January.

There are times when I wish I could shut my mind off as easily as the chainsaw. The din of constant mental speculation echoing through the silence of a forest can replace labor's sweat with anxiety: any crop with a 200-year growing season is hardly a "renewable resource" within the current meaning of the phrase. Firewood may replace itself within a few years in the rain forests of Washington and Oregon, but Piñon and Juniper still exist in New Mexico only because, until a few years ago at least, the supply far exceeded the demand.

History is the record of our illusions and appetites, and based on results, there isn't a shred of evidence to show that its study has ever taught us anything. It is said that the Sahara Desert is advancing by as much as 30 miles each year along a 2000-mile front because of deforestation and overgrazing, and some historians assert that the sagebrush deserts of New Mexico were grasslands before the Spanish came. Already in mountain villages on the south side of the Rio Grande the forests have been closed to firewood cutting, and it is a common sight to see people who live over 70 miles away coming to El Rito to get Piñon. Now as I sit in the silence of the trees I wonder how long it will be before this forest is closed and we'll be told to drive almost 100 miles to cut our winter fuel.

Downhill I hear a chainsaw starting up – it sounds like a Homelite. My ear is tuned to the sounds of technology, and though I don't know one birdcall from another, I can tell you what brand of machine you own just by the racket it makes. I stand up with aching muscles and pull the starter rope. The sound of my McCullough drowns out the noise below as I begin to buck the pine logs into stove-sized chunks. ■

Mustanging

by Laurie Rich

"MUSTANGING" was once one of the old cowboy arts, the finest sport of cowboy husbandry. Through the years, cowboys who once chased 'rangs have introduced many fine thoroughbred lines into the wild herds here in Utah. From Altamont to the Sevier, cowboys have been roping out wild stallions and introducing thoroughbred stallions and mares, later harvesting the foals. Some of them turn out to be nags, naturally, but others are fine saddle horses. Old mustangers will tell you that there's no easier horse to break than a 'rang (or sandtail, boomie, brushtail, or broomtail – there's a plethora of terms for these wild-thoroughbred crosses, including the Indian word *caeius*); and once a 'rang is broken, he's more trusting and loyal and true, more intelligent and much more powerful than any hot-blooded line.

Now mustanging is the last verboten vestige of our Western heritage, outlawed under the humane auspices of the Wild Horse and Burro Act as "molestation." Just last winter, the Bureau of Land Management (BLM) raised the price of "adopting" one of the wild mustangs from $27 to nearly $200 – well out of range of what most ranchers can pay for an unbroken 'rang, but well within range of what the meat companies will pay for horsemeat. The price of horseflesh has sky-rocketed, fueled by increased demand from Japan and England, and for pet food, and the intrinsic value of a potentially good saddle horse just can't compete with the price of meat. So most of the horses go off to the meat market at a much prettier penny and with many more pockets greased.

The impact of man's meat market on the wild

Sheepherder Laurie Rich writes from somewhere near Fountain Green, Utah: "I wear out about four horses a day herding scree and thick brush and get pretty wore out myself." She is trying to promote the production of a film on Utah's dwindling mustang herds.

Maybe because he doesn't wear out four horses a day **CQ** *Land Use Editor Peter Warshall differs with Rich on the extent to which mustangs should be preserved. He attacks issues with similar passion, though. Warshall currently lives in Tucson, Arizona, and makes a lot of field trips into the Sierra Madre.* *–Stephanie Mills*

LAURIE RICH

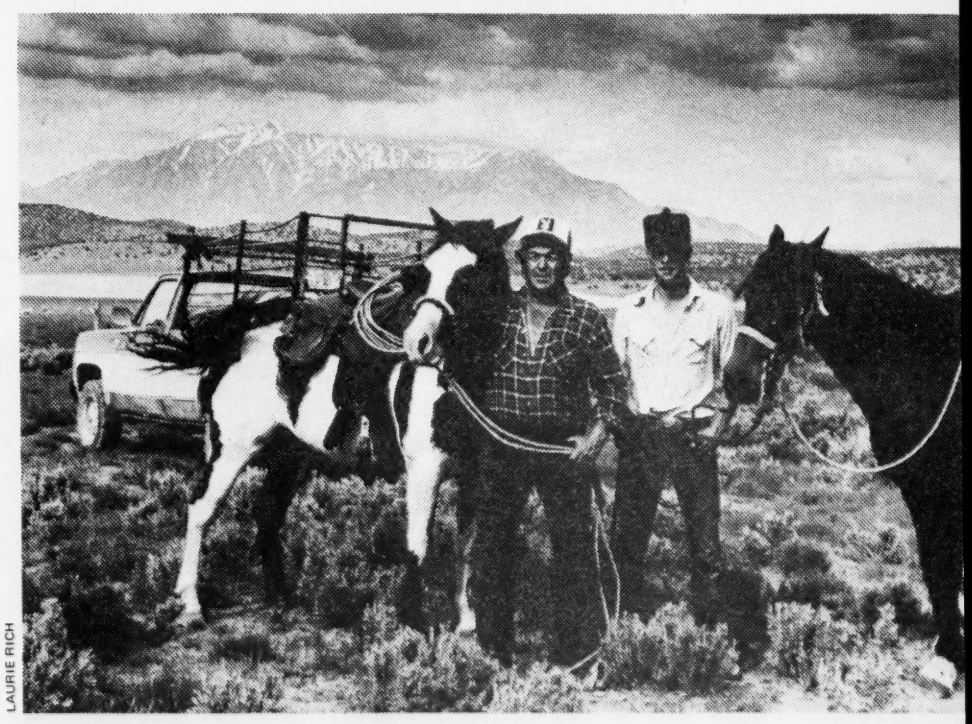
◄ "It's uncanny," said a mustanger, "to describe the sensations that overwhelm you when chasing after mustangs. It's like you were trying to capture their freedom for yourself." —Mustang by Anthony Amaral, University of Nevada Press

▲ Appaloosa roan, good friend in a tight spot. Devil's Kitchen, Mt. Nebo. —Laurie Rich

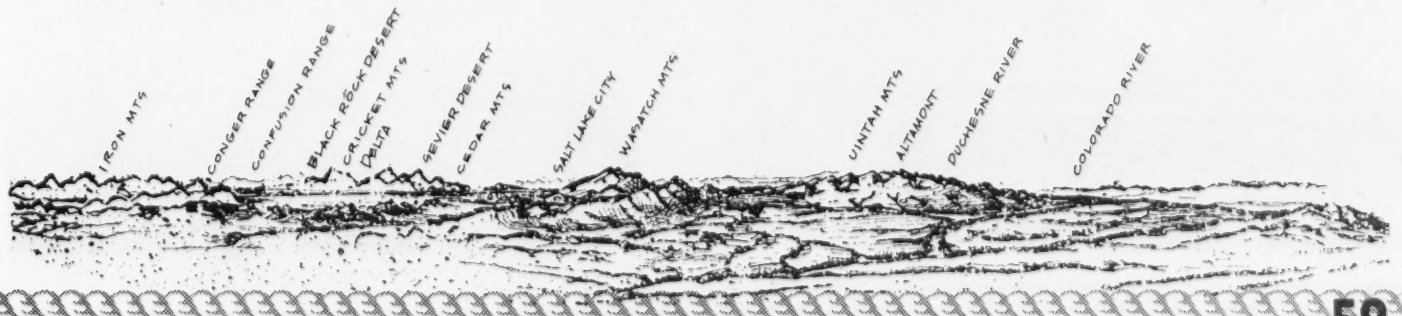
Old mustangers George Stulce and Kevin Rasband with their pinto mustang Pretty Boy. Pretty Boy was a "buckin' son-of-a-bitch" until George and Kevin got him and they broke him by using him to herd sheep. Pretty Boy came from a wild herd out in Ruby Valley, Nevada. —Laurie Rich ▼

horse has a sinister twist to it, a biting irony that never would have been tolerated by the great Persian or Greek civilizations. To them the horse was a gift of god, its being and worth their veritable forte, their main defense.

But what sucks today is the way these valuable saddle horses are being exterminated on public land, hauled off in devastating numbers. The BLM is rounding up these gifts of god and sending them off to the canner as fast as you can say "megabucks." At the last big auction out by Dugway – the Cedar Mountain auction – 90 of 100 horses hauled in for sale went to the canners in North Platte. Healthy herds of 200 and more have been totally cleaned out of the Swaseys and Cricket Mountains, from Iron Mountain to the Buckskins, from the Confusion Range to Conger Mountains, from Delta to the Nevada border. Most of the vast network of old



LAURIE RICH



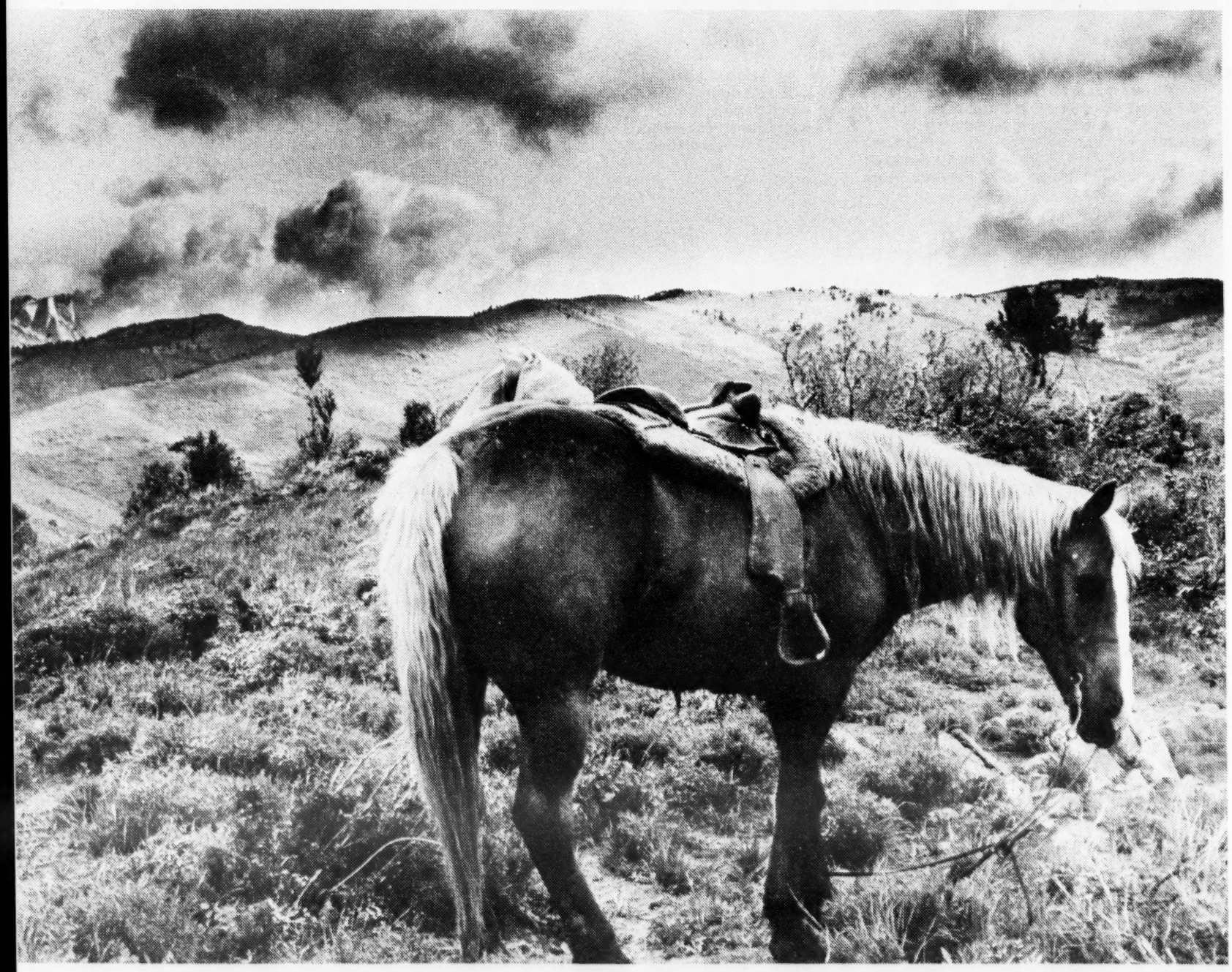
wild-horse trails is gone. A large herd which once roamed the Altamont-Duchesne country beneath the Uintahs is now extinct. A vague remnant herd of gorgeous pintos and chocolate palominos still clings to an inaccessible corner of Black Rock down by Millard.

Livestockmen have trapped and choked the herds off the only seven or eight watering holes in this whole West Desert. The 'rangs are waterbound; when choked off from their water holes they die. And so gone from the Sawtooth. Gone from the Antelope Springs. Ranchers choked most of the remaining herd off Antelope Springs because, they said, the horses steal too much feed. But the horses are territorial and don't compete for the same range as the livestock; they pull off on their own. In this desert winter range they stay up on the high tops in the snowbanks for water, and feed on that rank sagebrush and bullgrass most domestic stock never reach.

People forget until they actually traverse this country how much of it there is, an incredibly huge expanse of rangeland and plenty of feed for antelope, wild horse, cow and sheep allotments. But there's no wild-horse range established because most of them end up on a plate in Japan or England, big importers of horsemeat products. A few decades ago horsemeat started gaining value when many horses were shot off the range and sold to the fish hatcheries for fishfeed. And many of the wild colts are killed by mountain lions, weakening the herds further.

An old mustanger like George Stulce can go on ad nauseam about the wild horse, about the old days busting broncs on the Wine Glass out by Ely, Nevada, about the noble fight of Wild Horse Annie, state senator in Nevada, for protection of wild horses. George has herded and rode that Western Desert country all his life. Western bronc-buster, ex-cattle rustler, prize fighter, herder, trapper, rounder, and horsetrader supreme, he deals with strings of registered pintos and paint ponies, and he prizes

Palomino, herding Pole Canyon, Mt. Nebo, Utah —Laurie Rich

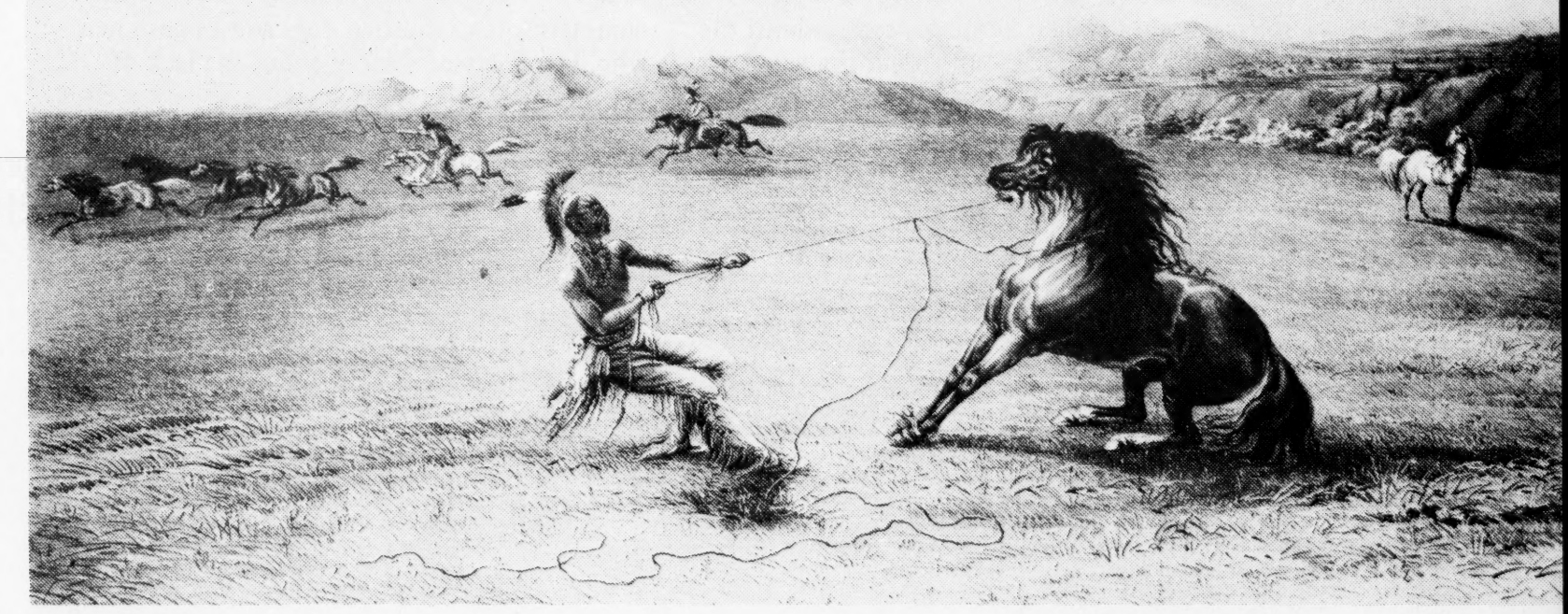


LAURIE RICH

above all horses with some mustang in them. Half-German, half-Cherokee, George has shot a score of bears, has broken his leg in 13 places bronc-busting, and can recite Robert Service. No one knows horseflesh like George, and for a man of his range of experience, it's hard to pinpoint the depth of tenderness and remorse in the tone his voice takes on when he starts ranting about the swift disappearance of the wild herds. "They ain't tryin' to protect the wild horse at all," he says. "They're tryin' to exterminate him, flat out! And they're succeeding pretty damn fast." ■

Mustanging

by Peter Warshall



"Catching the Wild Horse" from George Catlin's North American Indian Portfolio, **1845. Catlin began as a Philadelphia lawyer but took up art and headed west in 1832.**

IT *IS* THE LAST HALF of the twentieth century. Bull Durham's grown filter tips. Every fence mender sports shades and mosquito dope. Double-decker stock trucks haul old bossies to summer pasture. You may rant that the past leaves only rags and relics. It's a stance. At times noble. A voice in the wilderness that reverberates off cliffs. But it's a voice that rarely governs futures.

When I worked for the Bureau of Land Management censusing "wild" horses in Montana's Pryor Mountains, this is what I learned. There was a difference between tribally bred horses and runaway ranch horses. I fell in love with the tribally bred: the Cheyenne Medicine Hats, the Navajo Blue, the Buckskins with zebra-striped legs, the Choctaw Blazes, the Nez Perce Appaloosas. The runaway quarter horses (some with brands) were interesting but not eye-opening and wonderful like the Indian breeds. If wild-horse populations need to be managed, then I'd rather turn the ranch horses into dog food and keep the historic Indian relics alive. They are the product of one of the most interesting (some would say brutal) North American breeding programs ever to exist. (Indians gelded, or killed, or pampered prize studs, mostly Arabian-derived Spanish horses from the late 1600s to the mid 1800s.)

I also fell in love with horse social life. Not in corrals or fenced pasture. No stud farms. Here was the macho end of mammalian existence at full gallop. Muscled stallions jealously hoarding fickle mares. Zealous polygamy. And always the surprise: one all-mare group (with a few runaway geldings). In short, the argument for "wild" horses seems to be: Save the genetic diversity created by former Indian breeders and

save open-range horses so that recreational horse people can see how horses live their lives when unencumbered by culture.

In Montana, the local ranchers deserve most of the conservationists' credit. They saved the wild horse for foals and beauty. But now they understand that fewer and fewer "saddle ponies" are needed. Runaway population growth of horses is not necessary to supply the ranch. At the time of my work (1970), there was no market in "purebred" mustangs and no official definition of *mustang*. It was just the joy of local folks. Most of whom had shot horses, among other creatures, when necessary.

Mustang covers too much. I came to call a mustang any horse that was short, had that weird triangular set to the forelimbs, looked like its lumbar vertebrae might be fused, and retained the ability to open and close its crescent-shaped nostrils. Many had Roman noses. I was soft-hearted when the horse looked "primitive" or "Indian" and cold-hearted if the horse looked more like an American cavalry steed. I surely couldn't get off thinking any horse running around in the sagebrush was "wild" and, therefore, sacred. But then again, I like people who shoot runaway dogs that massacre sheep or deer, or runaway cats that chew up quail or compete with fox. Most "wild" horses chew up grasses and, depending where and how many, compete with cattle, sheep, deer, or pronghorn.

In North America, horses have always been dog meat. In the "good old days," "wild" dogs – wolves and coyotes – used to kill, eat, and control wild-horse populations. (As did Indians, who ate or killed their horses when times got rough militarily or nutritionally. Now, with commerce, it's suburban dogs and Englishmen who do it.) I worry more about the lack of

"Wild Horses at Play" by Catlin. The portfolio's subtitled Hunting Scenes and Amusements of the Rocky Mountains and Prairies of America. **Thanks to the Bancroft Library at the University of California for assistance in illustrating this story.**

STEWART BRAND

Wild Horse Roundup on the Warm Springs Indian Reservation in Oregon

William Moody, a 75-year-old Indian from Warm Springs, after three straight days in the saddle. These horses will be branded and then released to rejoin the wild reservation herds. I took these photographs during two weeks on the reservation in 1963 which altered my outlook more than any other short period in my life. Humans are domestic animals, some less than others.
—Stewart Brand

wolves, grizzlies, pumas, and other predators that used to control wild-horse population size than the appetites of poodles or the supposed horror of steak tartare. It is, in part, the destroyed food web of North America that gives the wild horse its niche. But cattle and sheep are marketed and managed. Deer and pronghorn are hunted and managed. Why not the "wild" horse?

In summary, each reservation should take over responsibility for their great-great-grandpa's tribal breed; ranchers should be allowed to cut out the few wild horses they might need; conservationists and stockmen should set population maxima for horses, cattle, sheep, deer, or pronghorn. In harmony with the carrying capacity of each range, excess horses should be sold, for the costs of capturing them, to either recreation riders, breeders, or for meat. But bleeding-heart bullshit that says leave the sacred "wild" horses alone in their wilderness homes ignores everything human, historical, and ecological about the West: hamburgers, overgrazing, fences, and the wolf. ■

RICHARD ST. BARBE BAKER HAS DIED

Dr. Richard St. Barbe Baker, O.B.E., known around the world as the "Man of the Trees," died June 9 in Saskatoon, Canada, at the age of 92.

Dr. Baker, an English forester and silviculturist, started the campaign in the 1930s to save the remaining giant virgin redwoods on the California coast. On May 22 of this year he participated in dedicating Redwood National Park as the first of the United Nation's World Heritage Sites. (There are seven designated sites in the U.S. and 112 worldwide.) He said, "My dreams have come true," and although very weak from a bout with pneumonia, he insisted on continuing his speaking tour of North America, always urging a stop to forest-destructive clear-cutting.

The author of over 30 books, Dr. Baker founded the Men of the Trees, an international society of tree enthusiasts, in 1922 in Kenya, and had been looking forward to attending the diamond jubilee celebration in England on July 22.

In 1952, St. Barbe Baker led an expedition across the Sahara Desert which found definite evidence that much of the desert had once been a tropical forest. He was convinced that the desert was caused by destruction of the forest, and he campaigned for years to promote tree planting to reclaim and stop the advance of the desert. He believed the Sahara could provide a bountiful homeland for 100 million people.

A pacifist and humanitarian, St. Barbe Baker urged that the world's armies be converted from military pursuits to tree planting. It was his advice to President Franklin D. Roosevelt that led to the establishment of the Civilian Conservation Corps and the planting of thousands of miles of shelterbelts in the Dust Bowl areas of the American West. In recent years, Dr. Baker has sounded the alarm about the grave threat to the Amazon forest, an "oxygen bank" crucially needed by the whole world.

Born in England, and a graduate of the University of Saskatchewan and the forestry college at Cambridge, Dr. Baker served as Conservator of Forests in Kenya and Nigeria before he started to devote full time to his work as secretary to the Men of the Trees and editor of their journal, **Trees and Life** ($12/year, 2 issues, from the Men of the Trees, Crawley Down, Crawley, Sussex, Great Britain BST 87NX). In 1959 he "retired" and moved to New Zealand, but he continued to travel, write, and lecture extensively, and he directed the worldwide activities of Friends of Nature.

St. Barbe Baker considered the tree the highest form of vegetable progress, just as man represents the most advanced example of animal evolution. "Trees and forests are the ideal environment for man, and he should study how to help his brother trees," he wrote. "By cooperating, man and forest both flourish, but if man destroys his arboreal friends for shortsighted gain, terrible retribution will result."

Dr. Baker's first book was **Men of the Trees**, published in 1931 with an introduction by his longtime friend, Lowell Thomas. Dr. Baker's best-known book is **Green Glory**, which has been translated into many languages. His autobiography, **My Life, My Trees** (192 pp., $5.75 postpaid from Hydra Book Company, Box 813, Forest Grove, OR 97116), was first published in 1970, and a new edition came out in 1981. Other books include: **Africa Drums** (1942), **The Redwoods** (1943, 1959), **I Planted Trees** (1944), **Sahara Challenge** (1954), **Land of Tané** (1956), **Dance of the Trees** (1956), **Kamiti** (1958), **Sahara Conquest** (1966), **Famous Trees of New Zealand** (1965), and **Famous Trees of Bible Lands** (1974). (With the exception of **My Life, My Trees**, all of St. Barbe Baker's books are out of print.)

St. Barbe Baker always attributed his robust health to his vegetarian diet and to his ability to gain renewed strength from companionship with trees.

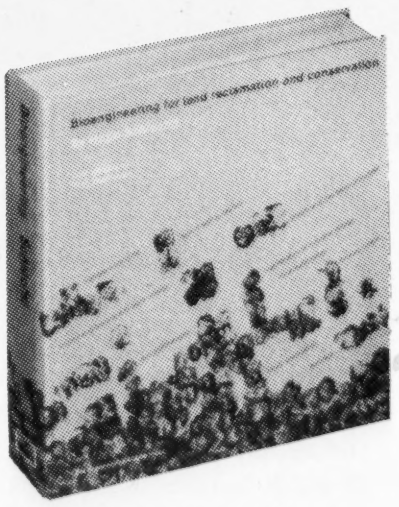
A Baha'i, Dr. Baker was buried in the place where he died. A funeral service took place at 10 a.m., June 11, at St. Andrew's Chapel, Saskatoon, Saskatchewan. He was interred in Woodlawn cemetary near two huge pine trees. He is survived by his wife, Catriona, a son, Paul, and a daughter, Angela. A memorial service was held in England in connection with the diamond jubilee of the Men of the Trees in July.

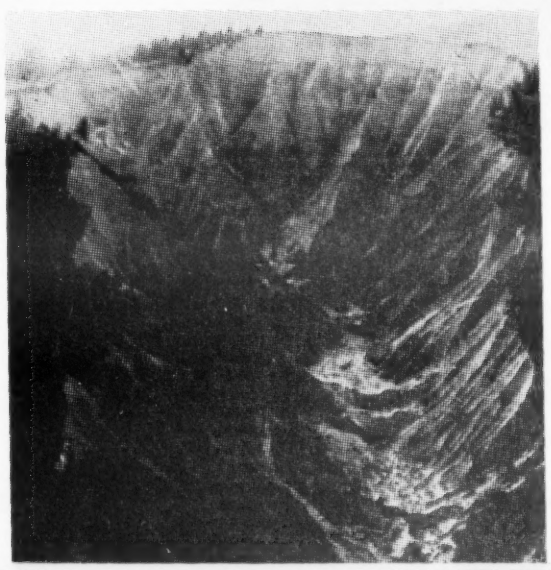
—Friends of Nature

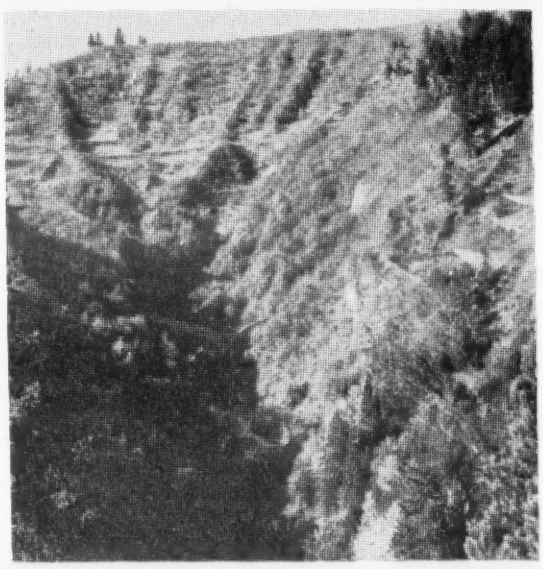
Bioengineering for Land Reclamation and Conservation

If this book had a subtitle, it might well be "How to Heal the Earth with Plants." It's a Canadian translation of two Austrian books by a man who has been doing reclamation work worldwide for 30 years. What a mass of specific detail — this technique failed to work in the south of France 50 years ago (and why), that method worked better on a similar problem in Czechoslovakia 30 years later, but this newer idea from New Zealand works better still. Here is a book for professionals that is easily accessible to the layman, in large part because so many of the techniques are flat-out labor intensive and will work as well in your backyard or back 40 as they will on a highway road-cut or mine-tailings pile. —*Richard Nilsen*

Bioengineering for Land Reclamation and Conservation
Hugo Schiechtl
1980; 404 pp.
$30 postpaid from:
University of Alberta Press
Edmonton, Alberta
Canada T6G 2E8







Slope in Austria (Filprittertobel in the Gallinabach, Vorarlberg) before cordon construction (1908) (photo: Gebielsbauleitung Dornbirn der Wildbach- und Lawinenverbauung)

Same area after application of technical and bioengineering methods; in the upper section, cordon construction by Praxl, hay seeding, and planting

The Dust Bowl

A black blizzard advancing over Prowers County, Colorado, 1937. It came from the north and lasted almost three hours.

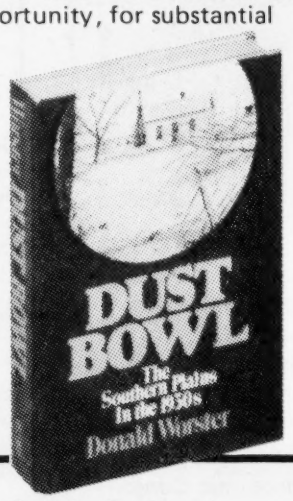
The Dust Bowl *is academic and at the same time chock-full of humanism. (It's rare when these two qualities combine these days.) The academic part: with real numbers Worster documents the death of the Plains states' landscape in the thirties. The humanistic part: at the same time his descriptions and anecdotes parch your throat and wear holes in the shoes of your imagination. It was hard times back then. It's hard times now, but in different ways (ways that we've been discovering over the last decade). What I found most fascinating about this book were the stories of the original government conservationists and land-use planners. An understanding of the roots of our institutional and legislative approach to the land lends nifty insights into the conversations that surround today's hard times.* —*Chris Hardee*

•

The Dust Bowl was the darkest moment in the twentieth-century life of the southern plains. . . . [It] took only fifty years to make. It cannot be blamed on illiteracy or overpopulation or social disorder. It came about because the culture was operating precisely the way it was supposed to. Americans blazed their way across a richly endowed continent with a ruthless, devastating efficiency that has not been matched by any people anywhere. When they came to the plains, they talked expansively of "busting" and "breaking" the land. And that is exactly what they did. Some environmental catastrophes are nature's work, others are the slowly accumulating effects of ignorance or poverty. The Dust Bowl, in contrast, was the inevitable outcome of a culture that deliberately, self-consciously, set itself the task of dominating and exploiting the land for all it was worth.

The Dust Bowl came into being during the 1930s, as fulvous dirt began to blow all the way from the plains to the East Coast. That was also the age of the Great Depression. Coincidence, some might say, that the two traumas should come at the same time. Few who have written on either affair have noticed any connection between them. The argument of this book, however, is that there was in fact a close link between the Dust Bowl and the Depression — the same society produced them both for similar reasons. Both events revealed fundamental weaknesses in the traditional culture of America, the one in ecological terms, the other in economic. Both offered a reason, and an opportunity, for substantial reform of that culture.

The Dust Bowl
(The Southern Plains in the 1930s)
Donald Worster
1979; 278 pp.
$16.95 postpaid from:
Oxford University Press
16-00 Pollitt Drive
Fair Lawn, NJ 07410



The Prairie Garden

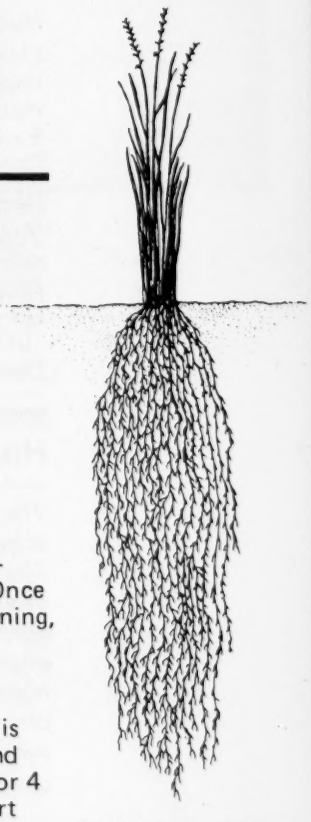
This book will tell you everything you need to know to start and maintain a prairie. It includes charts of prairie plants by habitat, color, and flowering time, sources of native plants from as far away as Canada, a bibliography for further reading, and a revealing comparison of the costs of the prairie vs. the suburban lawn. The line drawings are excellent. My only complaint is with the quality of the color plates. They're a tad muddy. I've been assured that the University of Wisconsin Press will try to improve them in future editions. You'll have no problem identifying plants using the plates and drawings together. —*John Mueller*

•

Prairie plants have many ways of fighting destruction. They resist fire and drought the same way they resist the shovel, by an extensive root system. They resist winter weather through hardening. They resist water loss through specialization of their aboveground parts. They resist competition by cooperating with companion plants and closing out intruders. They take advantage of wind, birds, and insects. They must have long hours of sunshine to survive, but, relatively speaking, little else. Once established, prairie plants require no covering, no pruning, no spraying, and most important, no irrigating, thus saving prairie gardeners hundreds of dollars in maintenance costs. . . .

Simply sitting back and letting nature take its course is not the same as establishing a sod of prairie grasses and forbs. A prairie landscape will take a minimum of 3 or 4 years to establish and as much or more time and effort as the most cultivated lawn and garden.

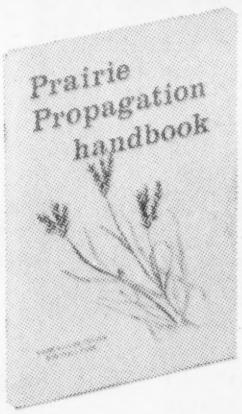
The Prairie Garden
(70 Native Plants You Can Grow in Town or Country)
J. Robert Smith and Beatrice S. Smith
1980; 222 pp.
$9.95 postpaid from:
University of Wisconsin Press
Box 1379
Madison, WI 53701


Little Blue Stem

Prairie Propagation Handbook

This pamphlet covers the propagation of hundreds of prairie species but does so in far less detail than the Smiths's book. It has small print, no illustrations, lots of information, and a modest price. —*Richard Nilsen*

Prairie Propagation Handbook
Harold W. Rock
1981; Sixth Edition; 76 pp.
$2.50 postpaid from:
Wehr Nature Center
5879 South 92nd Street
Hales Corner, WI 53130



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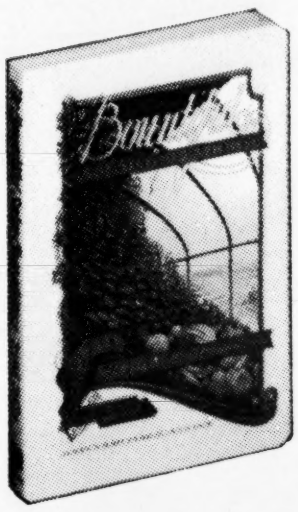
Use of Fire

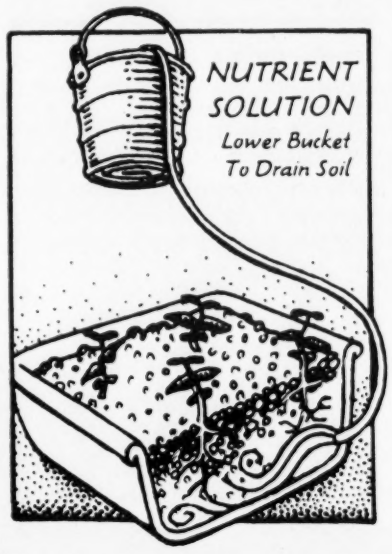
At the end of the second year of growth, *fire* may be used to reduce the number of invaders and the woody plants. The most effective time to burn the prairie is in early spring about the last week in March to the second week in April. Burning also seems to stimulate most of the prairie plants as well as some of the dormant seeds that may be present. After the first burn, the prairie is aided by burning once every 2 to 3 years. If there is not enough combustible material for a good burn, bales of straw may be spread about before burning. Spring burning can injure early blooming prairie plants and may stimulate the growth of sweet clover and Queen Anne's Lace in a young prairie, but it is far more helpful than harmful.

The Bountiful Solar Greenhouse

Books on designing and building solar greenhouses abound, but the scarce commodity until now has been an explanation of how to keep the plants inside them healthy and productive. Shane Smith helped start and has run the first large-scale solar greenhouse in America (Cheyenne, Wyoming's, Community Solar Greenhouse, 5000 square feet and 100 percent passively solar heated). He has a wealth of experience and a knack for straightforward explanation. Consider a major niche well-filled.

—Richard Nilsen





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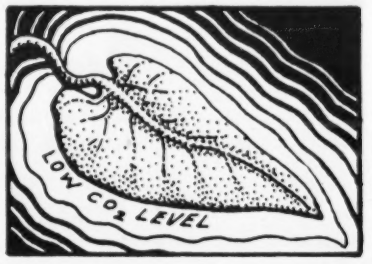
Hydroponic Pros:

Labor saving.
Easily automated.
Plants receive proper nutrition.
Eliminates need to weed, water, cultivate.
Can use space more creatively.

Hydroponic Cons:

You'll need to regularly purchase nutrient elements.
Not forgiving of any mistakes in mixing and adding fertilizers.
Crops are often more susceptible to disease and insect pests.
No wonderful sweet smell of soil, which is invigorating in the winter.
Does not produce any CO_2 to help plant growth.

The Bountiful Solar Greenhouse
(A Guide to Year-Round Food Production)
Shane Smith
1982; 222 pp.
$9.50 postpaid from:
John Muir Publications
P.O. Box 613-BG
Santa Fe, NM 87501
or Whole Earth Household Store



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Plants use so much of the CO_2 in the air that in sealed environments like a greenhouse, the level of CO_2 may be depleted from 300 PPM to 100 PPM by noon. This can easily slow plant growth by 60 percent — not a pleasant thought. This phenomenon occurs only in winter greenhouses when there is no outside ventilation and the structure is sealed to the outside. CO_2 depletion is less in attached greenhouses where there are people, gas stoves and pets, all producing extra CO_2. Depletion is also less in greenhouses with soils high in organic matter, due to the billions of microbes breathing in that rich, black, pulsing-with-life, humus-laden soil. But depletion may still occur because solar greenhouses are very tight structures. It is almost impossible to *see* a CO_2 deficiency because the only symptom is slower growth. You won't see any telltale signs in the crop. Equipment to measure CO_2 is very expensive and hard to obtain. . . .

I recommend use of an organic mulch to bring CO_2 levels to at least 1000 PPM — if not more. This enhanced level will help compensate for lower light and lower temperatures. It has the potential of increasing yields by as much as 20 percent. You can increase the level of CO_2 above 300 PPM (the natural outside level) only when your greenhouse is tightly sealed to the outside. Please don't hesitate to ventilate to the outside if you are overheating inside . But remember, when you open up to the outside, your CO_2 level will be the same as outside, 300 PPM. When you seal back up for a cold day, the mulch will help raise CO_2 levels again. To put it simply, it would be hard to find any other single low-cost thing you could do to make such a difference in food yield.

Huxley's Encyclopedia of Gardening

The Huxleys are still busy in the world of British arts and sciences, Anthony being Julian's son and Aldous's nephew. The book is about the names of things used in the craft of gardening and does not deal with individual plants. It covers British and American terms, including some archaic ones, and has a surprising amount of technique and history. The definitions are concise, the illustrations are clear, and the book is especially good on tools — with everything from a short history of the hoe to a picture of a weed-eater, listed under "Spin Trimmer."

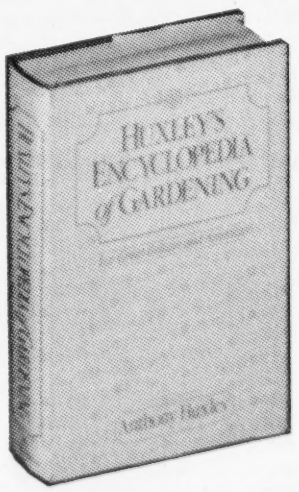
—Richard Nilsen

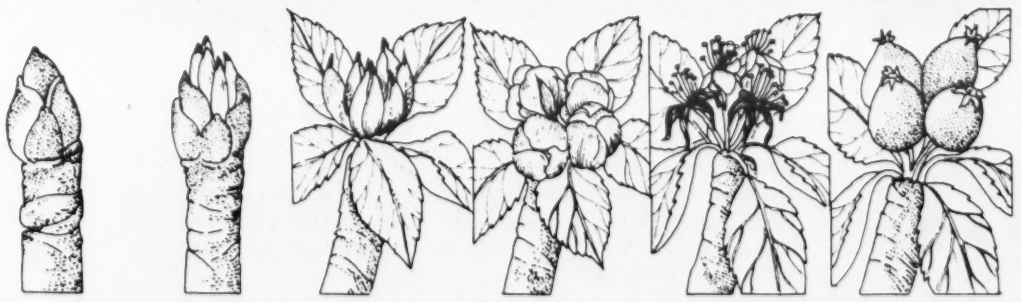
•

Apple and Pear

Dormant Buds not visibly growing in any way.
Swelling Bud enlarges, bud scales begin to separate.
Breaking or Green tip Bud scales open enough to show the tips of green leaves.
Bud burst The green leaf tips start to open out.
Mouse ear Leaves fully defined and the green blossom buds within can just be seen.
Green bud or green cluster The clustered blossom buds are clearly seen; outer scales fall.
Pink bud (in apples), *White bud* (in pears) Blossom buds are expanded but not open, and the petal colour can be seen.
Full blossom 80-90 per cent of the flowers are fully open.
Blossom or petal fall 80-90 per cent of the petals have fallen.
Fruitlet The small fruits are clearly visible as they start to swell.

Huxley's Encyclopedia of Gardening
(For Great Britain and America)
Anthony Huxley
1982; 378 pp.
$17.50 postpaid from:
Universe Books
381 Park Avenue
New York, NY 10016
or Whole Earth Household Store





BUD STAGES: Bud stages of apples from left to right: dormant; bud burst; green bud; pink bud; petal fall; fruitlet.

Design for Independent Living

Design for Independent Living *is essential reading for anyone who is disabled or for anyone who knows disabled people. The authors, both architects, used a multidisciplinary approach in studying the lives of disabled people who lived in Berkeley, California, during the late '70s, and they present disabled individuals as whole human beings, not just as wheelchair users or students or problems for architects. The brief biographies of seven disabled people will give the reader a vivid sense of what it is like to be disabled and the difficulties that are encountered. The photographs are instructive, beautiful, and occasionally startling. What I liked most was the authors' willingness to admit that they began writing the book with certain prejudices and misconceptions which they eventually abandoned.*

Independent Living *examines and explains in detail the social context needed for disabled people to live independently. I bought a copy for myself so that my friends and attendants may understand my situation better.*

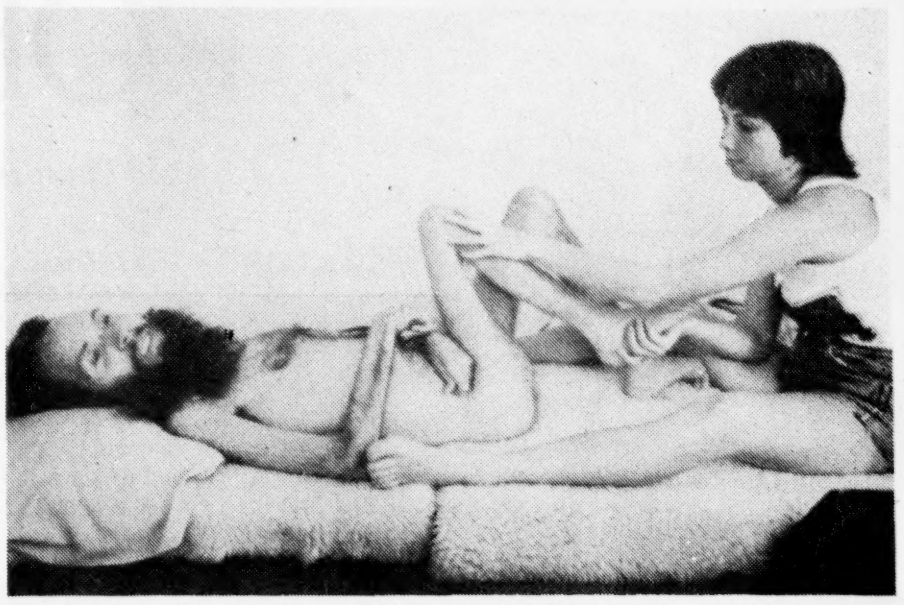
—Mark O'Brien

•

Security from the threat of physical harm by others is a constant concern for many wheelchair occupants. They feel that the chair itself is an advertisement of their vulnerability and inability to resist attack, and many regard themselves as "moving targets" for purse snatchers and muggers. A less obvious threat is posed by the unconscious fears and hostilities many people have toward disabled people. While typical street violence may be avoidable by careful selection of times and routes, the danger of unpredictable violent assault by an individual who feels threatened by disabled people can inhibit making potentially rewarding contacts.

Peter stresses that while security is an important consideration, and one that he is constantly aware of, "Danger is just a part of it all; part of being disabled is accepting that a lot of things are going to be harder, more time consuming, less safe. Most of us are very accustomed to being in some form of danger. We are susceptible to infections, injury, and so on; but you can't let that get in the way of leading your life. So you just accept the danger, and if you want to do something enough, you do it."

Design for Independent Living
(The Environment and
Physically Disabled People)
Raymond Lifchez and
Barbara Winslow
1981; 208 pp.
$9.95 postpaid from:
University of California Press
2223 Fulton Street
Berkeley, CA 94720



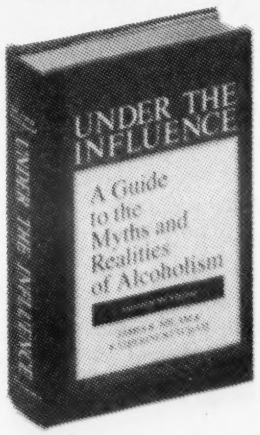
A setting for exercise and massage is made on the floor by using a 6-inch (15.4 centimeter) foam pad covered with sheepskin. Sheepskin is a desirable surface for those who are in bed a lot as it permits air to circulate under the body and thus minimizes the risk of bedsores.

Under the Influence

A crucial, breakthrough book on alcoholism. Highly respected in the field. What it does, among other things, is finally lay to rest the notion that alcoholism is a psychological, moral, or sociological problem. In this carefully researched work Milam and Ketcham bring together and explain for the layperson the medical evidence which demonstrates the physiological nature of alcoholism: alcoholics' livers don't function as other peoples' do, their brain chemistry leads them into a preference for alcohol, and heredity, and sometimes ethnicity, predispose them to the condition.

Ten percent of the total population is born this way, congenitally alcoholic, destined to become addicted to alcohol if they encounter it. Ignorance has condemned the vast majority of alcoholics to sordid, remorseful, foreshortened lives.

Under the Influence
(A Guide to the Myths
and Realities of Alcoholism)
James R. Milam and
Katherine Ketcham
1981; 208 pp.
$12.95 postpaid from:
Madrona Publishers
2116 Western Avenue
Seattle, WA 98121



Under the Influence *may help remedy the situation. It demolishes the idea that an alcoholic can resume social drinking. It also removes any basis for blaming alcoholism on social, economic, or environmental circumstance. In addition to its careful explanation of the biochemistry of alcoholism, it describes the progression of alcoholism as it is experienced by the alcoholic and those around him or her. It also advocates the practice of intervention, in which the employer, family, and friends of the alcoholic are schooled in a loving and factual confrontation designed to precipitate the sufferer into treatment. This is hairy, but life-saving.*

Apart from contributing a lot of irrefutable support for the idea that alcoholics are, by definition, powerless to control their drinking, **Under the Influence** *provides interesting insights into alcoholism-treatment research and funding, which is a big, heavily funded field. And it advocates a specific treatment regimen which weds hospitalization, AA, an anti-hypoglycemia diet, and nutritional supplements. Vital, simple, world-changing information.*

—Stephanie Mills

•

Not only may psychiatric treatment fail to help; it can actually be harmful since the search for psychological causes only reinforces the alcoholic's rationalizations and diverts attention from the physiological causes of the disease. Psychiatric exploration may go on for years, while the alcoholic continues to drink, and the physical disease goes on unchecked.

GRACE BLISS POEMS

Text and Photographs by Adam Levine

GRACE LESTER BLISS was born in Long Ridge village in Stamford, Connecticut, in 1886, a year in which Grover Cleveland was married in the White House, Apache Chief Geronimo finally quit the warpath, and Steve Brodie won a $200 bet when he survived a jump off the Brooklyn Bridge.

Grace was the seventh and youngest child of Gilbert and Margaret Lester. Her father was an underemployed brick mason who worked the family's rented eight-acre farm. Her mother was a classic housewife: she was cook and housemaid and nurse and seamstress and teacher and spiritual leader, and she took in washing and ironing to help the family get by.

Though she did work in the house with her mother, it was outside work that Grace loved best. Alongside her father and brothers she raked hay and husked corn, milked the cow and drove the horse. In between chores she went riding and sledding and fishing and berrying.

In 1909 farm girl Grace Lester met ice peddler George William Bliss. She called him "Billy Boy," he called her "Sweetheart," and they were married in what the newspaper called a "quiet but pretty wedding" in June 1910.

It was a happy but childless match: Grace suffered the trauma of miscarriage five times. For several years she cared for two foster children, twin girls of an Italian widower, but since Grace was a Protestant and the girls were Catholic they were moved to a more suitable home. In 1922 a doctor diagnosed a murmur in Bill Bliss' heart, and he left the ice business to become a foreman in the Yale and Towne Lock Works. He died of heart failure, at age 52, one April day in 1934, leaving behind a lonely widow.

For her first 17 widowed years Grace lived with her brother and sister, making quilts for money and collecting government checks. In 1951 she entered the Home for the Aged in Stamford, and spent the next 30 years in half a dozen such homes as a ward of the state. Grace died on January 12, 1981, from the effects of old age and pneumonia.

When I first met Grace Bliss I was a 17-year-old high-school senior, and she was a 90-year-old nursing-home resident. I was interested in the history of Long Ridge, the area where we both grew up. In Grace's childhood days Long Ridge was a thriving country village, with two stores, two churches, a post office, a daily mail and passenger stage, three blacksmiths, two coopers, a wheelwright, a mortician, and a true community spirit. By the time I was born in 1958 the area had become an impersonal bedroom suburb for wealthy white-collar workers in Stamford and New York, transformed, like so many other places, by the automobile.

I interviewed Grace a dozen times between 1976 and 1980, and in the process learned far more than the history of Long Ridge. By reminiscing about a world without the automobile, the aeroplane, and the atom bomb, Grace gave me a different perspective on these and other modern technologies that I take for granted. By holding intelligent conversations until a week before her death, she taught me that it is possible to survive to old age with wits and faith intact.

Most importantly, I learned from Grace that it is not the folks who grab the headlines who make history, but us "common folk" living our mundane lives. Will Durant once expressed this idea when he was asked to sum up civilization:

> Civilization is a stream with banks. The stream is sometimes filled with blood from people killing, stealing, shouting and doing the things historians usually record, while on the banks, unnoticed, people build homes, make love, raise children, sing songs, write poetry and even whittle statues. The story of civilization is the story of what happened on the banks.

I am working on a book based on my interviews with Grace Bliss. It is a story of growth and change in a woman and her world. In the book, for the sake of consistency, all of her words will be transcribed into prose. However, someone once told me that oral history can be transcribed into verse as well, that people, when relating well-loved or well-remembered events of their lives, sometimes wax poetic. I tried this method with the transcripts of my interviews with Grace. The worst verses sounded like and looked like diagrammed sentences. The best are those that follow.

Adam Levine, 24, says, "I write what I know. What I know is just people and little things and not anything profound. The little things are what we live day to day, and they're what's important to us. In their littleness, they're really quite profound." Levine is a freelance writer-photographer and secretary-treasurer of the Philadelphia Solar Energy Association. He chooses to do things on a local level, "things that I feel I can affect personally." —Stephanie Mills

I was born
on the first day of March
in a terrible, terrible ice storm.

My mother used to tell
what a terrible time they had
getting the woman that was gonna take care of her
and the doctor
and
oh dear!
Everybody fell down and it was terrible!
Awful ice storm,
Mother said everything was just covered with ice.
People fell down
and horses fell down
and it was a terrible time!

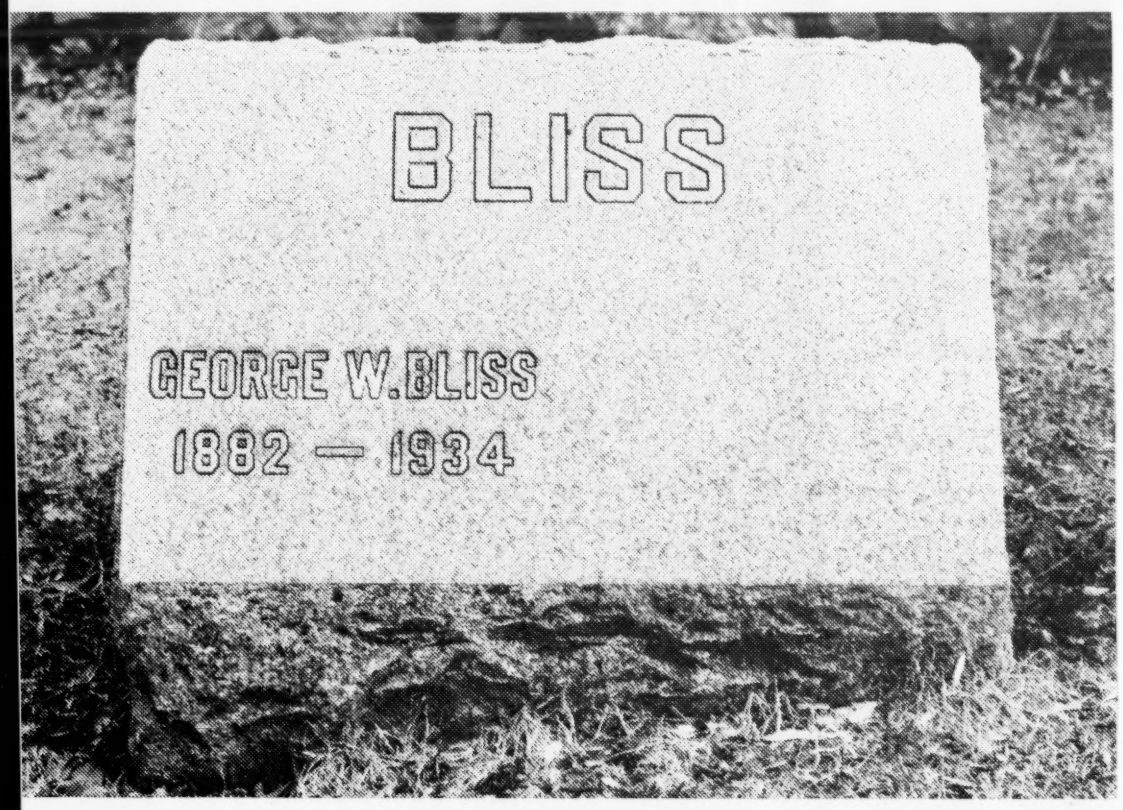
But,
I survived!
No doctor was there
when I appeared in the world

My mother
("worked her fingers to the bone,"
as the saying goes.
She was always doing something.
Didn't catch my mother
sitting around not working.

If it wasn't anything else
it was sewing.
She sewed and sewed
and sewed and sewed.
In between all the other things
that she had on hand
she did the sewing for our family.
She made our clothes and did a lot!

She was a wonderful,
wonderful woman,
a provider.
She saw that everybody had
what they should've had,
as near as she could.
Our family,
we never lacked for anything.
She always managed,
somehow,
to get something that we needed.

And she didn't steal it, either!



My husband was a lovely man.

He was so nice.
He never,
we was married almost 24 years,
and he never
in all of that time
scolded me
or found fault with me
or found fault with anything that I did
or anything at all.

He was always so nice.
He was a lovely man.
And I loved him so.

Well,

he died,

very suddenly,

1934,

42 years ago.

I miss him terribly.
Even yet it seems as though
I can't get along without him.

I want him so bad!

You see,
years ago,
people used to have to do things,
walk
and use their arms and hands
working and doing things that
nowadays
they don't do.

Now
they have machines
to do things that
used to be done by hand.

You know,
I think
the old fashioned way is better,
better for *people.*

Of course,
they can't accomplish as much
as fast,
but I don't know,
this Machine Age,
I don't think it's so good,
I mean,
so good for *people.*

Well,
I guess
I'm just old-fashioned.

The trouble is
I have no money.

I'm destitute
as far as money's concerned,
so I have to be
where the state or some society
pays for me,
and this is a state concern.

You see,
I'm under state rule
and so I've got to be where they put me,
which isn't always just my choice.

But,
I can't help it.
I'm a *state ward.*
I have no money of my own.

So,
I'm what they call a *state ward.*

You know,
I saw him.
He came one time,
oh,
it was years ago now.

I'd just gotten into bed.
It was in the summertime
and I'd just gotten into bed
and pulled the sheet up over me
and I saw this man enter the room.

And the door that came into the room
was right opposite the foot of my bed,
and he came over to the foot of my bed
and turned
and looked at me.

It was Jesus.

And He held out both hands like that
and the most beautiful rays
streamed from His hands toward me.

Oh,
it was just,
ooh,
gorgeous,
beautiful!

And He didn't say a word
but He stood there
with His hands out toward me
and those streamers of beautiful light
coming onto me.

And finally,
all of a sudden,
He vanished down through the floor.

And I've always thought,
ever since,
and that's years ago,
that He is around me,
near me.
I'm sure that He takes care of me.
I put myself every night in His care,
and I'm sure that He answers me.

I know.
I just know.

Texas Crude

by Ken Weaver
Drawings by R. Crumb

Conversational Fragments, What They Mean, and Where and When to Use Them

"I was so scared my ass pulled five pounds of cotton out of the front seat of the truck!"
1. A description of an intense dimension of fear, accompanied by what combat veterans of the U.S. Marines call a "high pucker factor." The above statement was made by a marble-quarry truck driver after he had safely negotiated a long downhill run with a full load and no brakes.

"I'm serious as cancer."
1. As Alice in Wonderland might have said, "Seriouser and seriouser. . . ."

"He's checkin' his eyelids for pinholes."
1. "He" is taking a little nap, but if you wake him up and ask him, he'll deny it.

"Boy, when you're 18, your plate is broken and your corner of the table is sawed off, in this house."
1. When the son comes of age, it's time for him to leave home and hearth, and go out into the cold cruel world and seek his fortune. And quit mooching off his folks.

"Throw some glass in that pneumonia hole!"
1. Close the window. Usually heard while riding in an automobile.

"Might as well; can't dance, and it's too wet to plow."
1. Acquiescent answer to any suggestion.
2. "O.K., let's."

"It'll feel better when it stops hurtin'."
1. Simple, and I do mean simple, words of comfort.

"Hold a strain on 'er, partner."
1. As much as is in your power, maintain control of your life. Usually said in parting.

"I've enjoyed just about all of this I can stand."
1. Means, "I am bored and/or repelled by this. Let's go."

A Texican Lexicon

crippled sick
1. Gravely, albeit psychosomatically, ill.
"Hot damn, I'd love to he'p you boys load that hay, but I've been just crippled sick here lately."

slutted out
1. Ruined, laid waste to.
"Son, you want to watch out for those 'mechanic's special' cars in the want ads. Most of 'em are so slutted out it'd take a faith healer to get 'em to start."

in a hot New York minute
1. Immediately. Equates to a nanosecond, or that infinitesimal blink of time in New York

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Texas looks like this in Ken Weaver's mind's eye: "Striations; all these layers of wit, humor and depth. People who aren't afraid to enjoy the shit out of a pretty sunset. People who can make fun of themselves very easily without being vicious."

Weaver, 42, was born in Galveston and raised in El Campo. Thanks to the influences of **Mad** *magazine,* **Rebel Without a Cause**, **Blackboard Jungle**, *and* **The Wild One**, *he had "got the idea that there was egress from the track." Reading Jack Kerouac's* **The Subterraneans** *moved him all the way through the egress. He joined the Air Force, became a Russian translator, and got to do a lot of traveling.*

When he was discharged from the service in '63, he drifted over to New York and became a Fug. The Fugs were a

between the instant the traffic light turns green and the ol' boy behind you honks his horn.

one brick shy of a load
1. Crazy, retarded, stupid.

too far and snakey
1. An inconvenience.
"I'd take you across town, but it's just too far and snakey."

Oklahoma credit card
1. A siphon hose, used for stealing gasoline. In Oklahoma they probably call them "Texas credit cards."

Roebuckers
1. Prosthetic dentures.

to sleaze over to a place
1. To go, furtively, somewhere.
"The plates on my pickup are stolen, so let's kinda sleaze on over to Gunther's and see if we can talk him out of a cold beer."

Thelman bushing
1. A fictional automotive part that's always ruined and out of stock and on back order when your car breaks down in Gila Bend, Arizona, and you have Texas plates. (When in Gila Bend, beware of an evil desert rat shadetree mechanic named Ralph. A word to the wise.)

Johnson rod
1. Always connected to the Thelman bushing. It's always broken and out of stock, too.

tee-ninetsy
1. Minuscule.
"I don't know what he sees in her. She got these tee-ninetsy little ol' titties."

A dollar three eighty
1. A fanciful price tag, used when one wishes to conceal the true price of an article.
"Aw, this is just one of those ol' dollar three eighty CB raddidios."

Mule eggs
1. A hoax, a fraud, the spawn of a chiseler's heart.
"City boy hadn't been out here a day before Lon had sold him a half-dozen cockleburrs for porcupine eggs, a horney toad for a baby dinosaur, and a watermelon that he said was a mule egg."

To grab another cog
1. In the realm of internal-combustion-powered vehicle, this means to shift to a lower gear, as when pulling a heavy load up a steep grade.

Dick-fingered
1. Maladroit.
"He's so dick-fingered he can't pick his nose without puttin' his eye out."

Sloughed up (Pronounced: *sluffed*)
1. In very bad shape, physically, morally, cerebrally.
"My sweet little daughter likes him, but he's a sorry, sloughed up sack of Siberian sheep shit, to me."

Belt-buckle polisher
1. A slow dance tune.
"Now here's a belt-buckle polisher, so all you lovers can dance cheek to cheek . . . to cheek . . . to cheek . . . ."

Table muscle
1. Belly, stomach, paunch.
"Monroe likes to brag about how strong he is, but

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beatnodelic band which vocalized everything from William Blake to a ditty of their own composition titled "Do You Like Boobs a Lot?"

In 1975 Weaver went to North Texas to work in the oil fields, just as his father had. It was there, "at the headwaters of the mad American language," that he began collecting the figures of speech which are "Texas Crude." "I worked with geniuses in the oil fields," he said. "They didn't know anything about Chaucer, but Chaucer would have loved them."

Weaver, his wife Nancy, and their eight-month-old daughter, Ashley, now live in Tucson. He is studying Russian, linguistics, and geology at the University of Arizona. And he's been thinking about going home. People criticize Texas and Texans and have prejudices about them as unreasoning as prejudice can be. But, he says, "Texas just goes on. Dogs howling at the moon don't seem to bother the moon much."
–Stephanie Mills

it looks to me like that table muscle's the one that gets the most workin' out."

tracer booger
1. A children's game whereby fireflies are stuffed into the nostrils and forcefully expelled, usually in the direction of one's friends, the idea being to imitate a gun firing tracer bullets. "Booger" is a term for bits of dust and mucus found in the nose. This game is played only at night.

Eat up with the dumbass
1. Consumed with stupidity.
"When I saw ol' Delbert tryin' to siphon gas uphill, I knew for sure he was eat up with the dumbass."

a henway
1. A fictional object dropped into a running conversation like this:
"I believe that'll keep your head gasket from leaking. Of course, what you really need here is a henway."
"Say what?"
"A henway. We need a henway."
"What's a henway?"
"Oh, I guess a good-sized hen weighs about two or three pounds."

"TRACER BOOGER"

"He could fall up into a tree."
"He could fall out of a well."
"He could fuck up a one-man rock fight."
1. All descriptive of the accident-prone, the subconsciously suicidal, and/or the terminally clumsy.

". . . anything he can't fuck up, he shits on."
1. He possesses stupidity with a malevolent undertone.

"If you're gonna homestead it, why don't you build a fence around it?"
1. Usually hollered at slow drivers.

Slurs and slanders

". . .looks like a monkey trying to fuck a football."
1. Refers to someone doing something clumsily.
"That guy tryin' to change a tire looks like a monkey tryin' to fuck a football."

Slinch
1. A "slinch" is anyone who finds disfavor in your eyes.

"Look at that face; it's done wore out two bodies."
1. Said of somebody's old face, said with love and only to someone you know well.

"You'd complain if they were hanging you with a new rope."
1. You're a chronic malcontent.

"A hundred-yard dash and a good cigar would kill him."
1. He's so out of shape he's only breathing from memory.

"He's cross-threaded between the ears."
1. He's not stupid; he's crazy.

"The bigger the belt buckle, the littler the peter."
1. These are what are known as "war words." Spoken in the presence of any authentic rodeo cowboy, or ranch hand, they would also constitute an "action-provoking statement," the "action" probably a swift and systematic ass-whuppin'.

Shithook
1. Instrument of unknown origin or purpose.

Violence, Caveats

Sometimes the Good Ol' Boy gets to feeling a little mean. Sometimes there's a nagging little twinge in the area of his extra Y chromosome and only one thing will help: a good old-fashioned knockdown dragout tooth-loosening skull-cracking brawl. What is meant here has no resemblance to Hollywood's fun and games with balsawood furniture.

I'm talking about The Real Thang. Like they practice up in Mingus, Texas, home of the Superbowl of Barroom Brawls. Where any fight that lasts over two minutes will probably leave someone maimed or dead, beat to death, or at least beat into bad health. Where the punches sound like a mule kicking a side of wet beef. Where the sawdust on the floor is yesterday's furniture, and were you to be hit with a piece of that furniture you'd probably die of tetanus if you didn't get your head knocked clean off.

I'm talking about beer joints where you buy your beer in longneck bottles, two at a time, so you always have a full one to use as a weapon in case some fool remembers, or makes up, or hallucinates, something about you he doesn't like.

I'm talking about fights where ears get gnawed off, eyes Jack Hornered out, and teeth sometimes litter the floor like bloody turtle eggs on the old highway. The things that happen when a Good Ol' Boy feels like feeling Bad.

A Detour of Caveats

"Won't be nothin' left of you but the fur and the claws."
1. The result of standing up when you should shut up.

"You're fuckin' with your heartbeat."

"You big sonsabitches line up, and you little sonsabitches bunch up!"
1. The war cry of the fool who wants to fight everybody in the place.

"There are only two reasons one man stares at another: he either wants to fight him, or suck his dick. Which do you want?"
1. This is the last of the big-time ultimata. If someone is staring at you in a bar and you say this, he has either to fight you, or slink out the door. Unless it's one of those weird bars . . .

"I may have to put some kittycumbotty on your ass."
1. "Kittycumbotty" is the anglicization of the Tex-Mex expression, *¿Quiere combate?,* which means, "Do you wish to fight?" Here it has been metamorphosed into a noun, meaning physical violence.

A Selection of Handy Phrases Apropos of Violence

"His nose has been broke so many times his whole face is on the bias."
1. A description of fisticuff-induced cranial tectonic drift.

To beat someone into bad health
1. Just that.

The Five of Clubs
1. The fist.

To gar-mouth
1. To spout empty threats and imprecations. "I'll knock your ass up so high you'll have to climb a stepladder to shit!" is a classic gar-mouth line.

Exclamations & Ejaculata

"Suck me raw with a breastpump!"
1. Used for surrealistically frustrating situations.

"I feel so good I'm getting jealous of myself!"

"Come or bleed; I ain't gonna spit on you again!"
1. This is a high-intensity figure of speech and should be used sparingly. It bespeaks a great degree of frustration and stress, and contains an obvious masturbatorial resonance. This might be heard from someone sweating at the pullrope of a recalcitrant outboard motor.

"Shoot low, they're ridin' shetlands!"
1. Good advice if you're in a firefight with pygmy outlaws. If you're not, just say it for fun.

On the Job

"Never hire a man who wears a straw hat, smokes "roll-your-own" cigarettes, or wears lace-up boots."
1. The philosophy behind this is that if he's not chasin' that damn hat in the wind, he'll be rollin' a cigarette or tyin' his laces. He's not gonna have any time to work!

"Only three things you need to know about plumbing: water runs downhill, payday's Friday, and you don't put your fingers in your mouth."

"Duck, or no dinner!"
1. Be careful on this job or you won't live to eat your next meal.

"Keep that up and all your children will be born naked."
1. Usually said to warn someone of an unsafe work habit.

"Walk fast and look worried."
1. What to do to look busy when a Bigshot shows up unexpectedly. Also carry a prop, such as a clipboard, or a shovel.

To work from dawn till dark thirty.
1. To work from daylight until dark.

A Sherwin-Williams overhaul
1. Specious repair work done on a piece of worn-out broken-down equipment. All the oil and grease are cleaned off and a few exterior parts replaced. Then it is given a sparkling new coat of paint and when sold is touted as having had a complete overhaul.

A Gilligan hitch
1. Name used for any method of binding with a chain.
"Hell, throw a Gilligan hitch on it, and let's go!"

Close-ology
1. "Close-ology" is the practice of drilling oil wells as close as legally possible to a successful well in hopes of tapping into the same oil-bearing pool. ■

To be continued

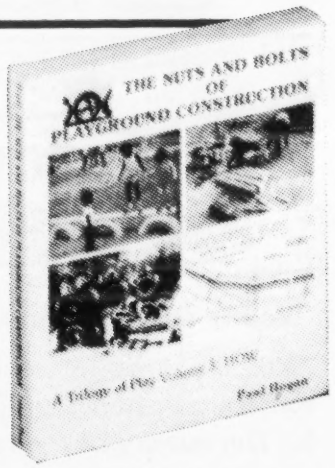
BOX 428 SAUSALITO CA 94966

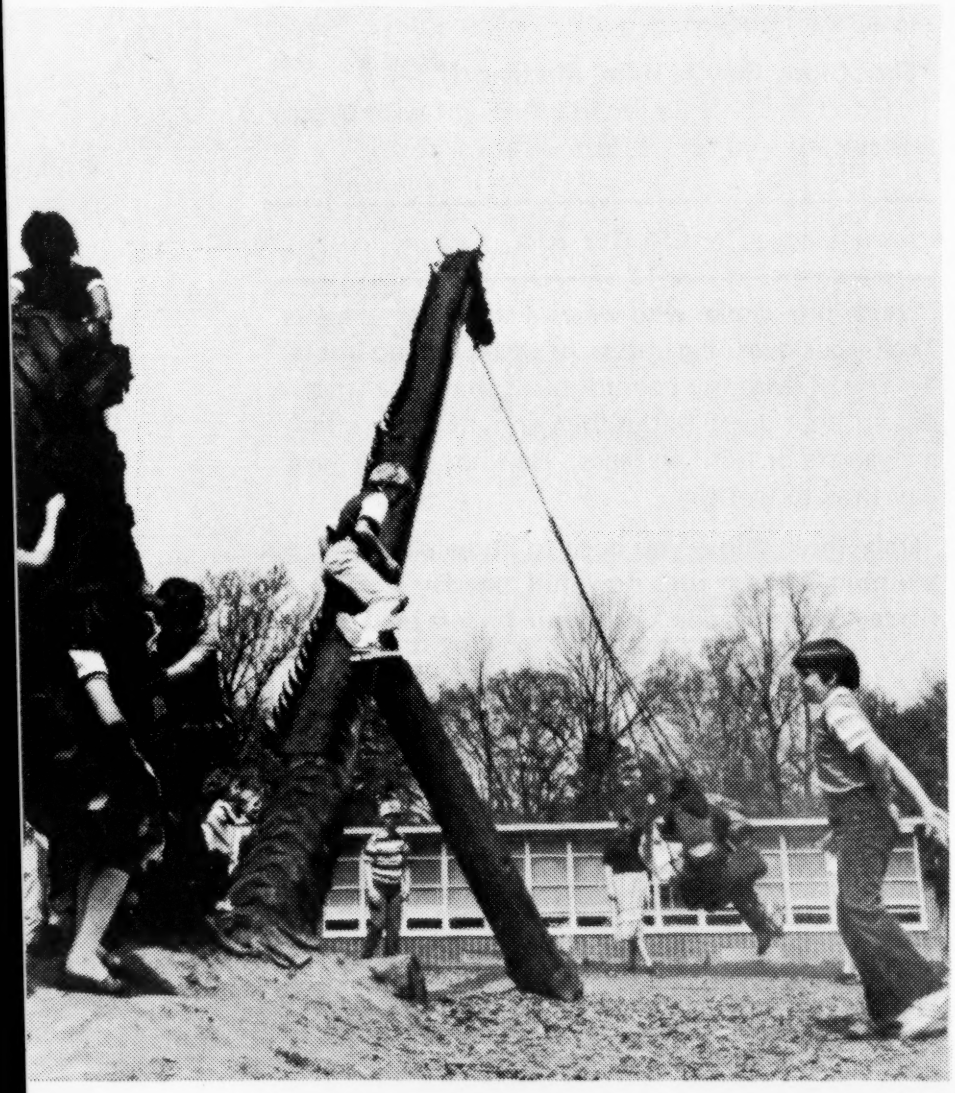
The Nuts and Bolts of Playground Construction

The Nuts and Bolts of Playground Construction *is a tremendous treasury of creative ideas along with enough practical detailing to allow the average parent or group of parents to go out and do something about their child's play environment.*

I met Paul Hogan one weekend a couple of years ago while he was helping a community group in Opelika, Alabama, build a playground with volunteers. The man impressed me greatly with his hard physical labor, his childlike perspective on play, and his creativity in using just about any material to come up with usable playground equipment of innovative design. All of the material used in building the playground had been donated along with the labor of various community groups. His approach to playground building was impressive then and should be even more so in these days of decreasing dependence on handouts from Washington and increased reliance on community self-sufficiency. —*Milton Sandy, Jr.*

The Nuts and Bolts of Playground Construction
Paul Hogan
1981; 224 pp.
$14.95 postpaid from:
Leisure Press
P.O. Box 3
West Point, NY 10996





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The Swing

How do you like to go up in a swing?
  Up in the air so blue?
Oh, I do think it the pleasantest thing
  Ever a child can do!

Up in the air and over the wall,
  Till I can see so wide,
Rivers and trees and cattle and all
  Over the countryside—

Till I look down on the garden green
  Down on the roof so brown—
Up in the air I go flying again,
  Up in the air and down!

—*Robert Louis Stevenson*

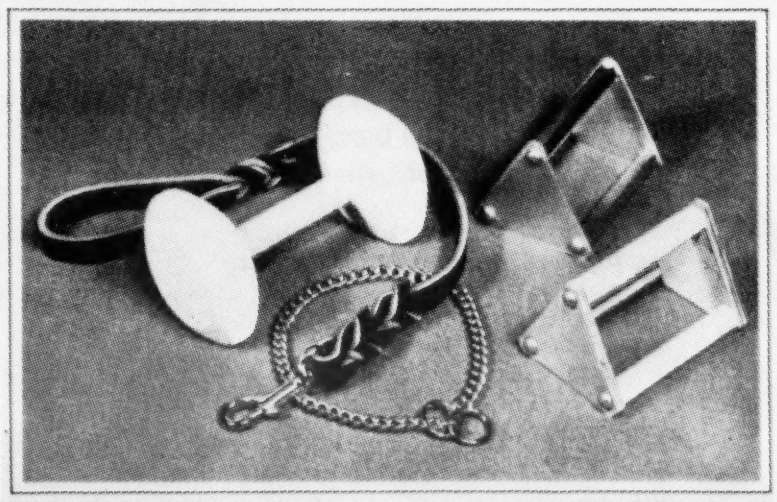
The poem, **The Swing**, by Robert Louis Stevenson, explains why the swing is perhaps the oldest sort of play experience for children. Kids still swing on vines when one is handy — they are prefered over any I can make — I know that. Vines aren't always handy so we must make do. The next best swing to a natural vine in the woods is the cantilever tire swing. Following are plans and photos of several I've worked on. The Loch Ness Monster Swing is my favorite and was built last year with children from the Devon, Pennsylvania Elementary School. The day it was completed we saw three kids perched on the twenty foot high head. We smeared axle grease over the upper portion of the neck and now kids go halfway up and no further.

J and J Dog Supplies

If you're a serious dog trainer, chances are you already own some J and J products. This small family-owned firm offers a wide variety of field, show, and obedience-training equipment. All products are brilliantly designed and crafted for convenience and safety to both dog and owner. And don't worry, they haven't forgotten durability! Their braided leather leashes are said to last for the lifetime of one dog, if not two. Most of the products are A.K.C. regulation, and when they're not, J and J lets you know.

Prices here are a bit high but every item is backed by an unconditional 100 percent guarantee. As one owner of a high-quality pet shop told me, "They're worth every penny." —*d. Hopkins*

J and J Dog Supplies
Catalog
free from:
J and J Dog Supplies
P.O. Box 1499
Galesburg, Il 61401



One-piece dumbbell, 5 sizes, $7.40 to $10.45. Two-foot traffic leash, $4.16 to $6. Choke chain necklace, $5. Triple-bar competition articles, set of 12 (6 metal, 6 leather), $49.50.

NOMADICS

Wilderness Skiing • Cross-Country Skiing

Recipe for a snow sandwich: one cranium between two generous slabs of the hard white stuff. These books will help prevent that. **Wilderness Skiing**, *part of the Sierra Club's fine Tote Book series, is specifically aimed at back-country (as opposed to track or race) skiing and is designed to be carried along when touring. It covers the basics – technique, equipment, safety, camping – with no-nonsense prose and still manages to convey the very soul of the sport. Back-country novices will find it especially useful.* **Cross-Country,** *published by the Mountaineers, is primarily concerned with technique, uses photos generously – particularly helpful in understanding turns – and has a strong chapter on racing. Good for the skier who wants to improve but intends to stay within hailing distance of the lodge. –Joe Kane*

(Suggested by Charles Hood)

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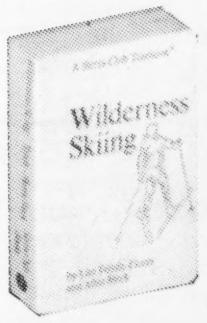
What if you're caught in an avalanche? It's a good idea to shout to attract your companion's attention. We haven't talked to any experts who believe in the efficacy of the proverbial 'swimming' motions to stay on top; but you must still react. *Make vigorous efforts to stay upright and oriented.* (If you're upright, it will take six feet of snow to bury you; if you're knocked down, one foot may be enough.) Just as you feel the avalanche coming to a stop, you must do the following. *Keep both hands in a protective position near your face and chest. Then, just as you feel yourself stop, cover your mouth with one hand, and reach straight up with the other.* This gesture of reaching toward the surface has permitted numerous victims to be dug out in minutes; but it only helps if you know which way is up. Likewise, it's vital to protect your face and mouth; not merely to insure a breathing space, but to keep from swallowing cold snow, which may stop your breathing altogether (by possibly inhibiting the vagus nerve in the back of your throat).

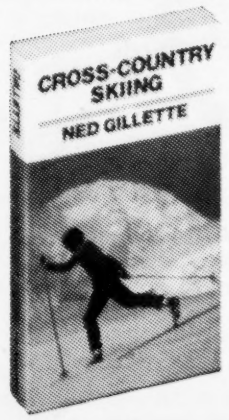
As an avalanche comes to a stop, the snow (even light powder) will usually set up as a hard solid mass. This is due to the sudden release of kinetic energy and to the 'age hardening' of snow during its fall – and it has the gravest consequences for a trapped skier. So in the first seconds, try to make enough room around your face and chest for easy breathing, before the snow hardens.

–Wilderness Skiing

Work from your familiar snowplow to ease into a telemark. **—Cross-Country Skiing**

Wilderness Skiing
(The Sierra Club Guide to Skiing off the Beaten Track)
Lito Tejada-Flores and Allen Steck
1981; 288 pp.
$9.95 postpaid from:
Sierra Club Books
2034 Fillmore Street
San Francisco, CA 94115
or Whole Earth Household Store





Cross-Country Skiing
Ned Gillette
1979; 223 pp.
$6.95 postpaid from:
The Mountaineers
719 Pike Street
Seattle, WA 98101
or Whole Earth Household Store

National Ski Patrol

Whether you're still perfecting your face plow or you're an accomplished ski mountaineer, you must confront one imposing variable: Mother Nature in winter, her wildest time. Safety becomes the better part of skill. The National Ski Patrol teaches, and does, safety. A volunteer organization with chapters throughout the country, including many urban areas, the NSP is best known for its patrol and search-and-rescue operations in downhill ski areas. But with the increasing popularity of cross-country skiing, they've begun to expand their back-country program. In addition to patrolling, they give classes on basic back-country survival, including avalanche training, and they'll help you set up a patrol program in your area.

Last year the NSP published an outstanding back-country manual, **Ski Mountaineering.** *It's not available to the general public, but they're working on a second edition which may well be. In the meantime, you can probably wangle a copy if you take one of their classes. Better yet, take their excellent patrol course, become a member, and help your fellow skier. –Joe Kane*

National Ski Patrol
Nearest chapter information

free from:
National Ski Patrol
2901 Sheridan Boulevard
Denver, CO 80214

Cross Country Skier

As winter camping and cross-country skiing expand in popularity they increase in sophistication. The best way to keep pace is through the magazines devoted to the sport. There are about a half-dozen available in the U.S.; the newest and best is **Cross Country Skier.** *It's published right in cross-country country – Vermont – which is both good and bad: bad because the magazine is sometimes weighted toward New England, good because it covers the real news of the sport (e.g., should national forests charge for track skiing?), including down-to-earth info on technique and new technology, books, and events. With age,* **Skier** *should overcome its provincialism but retain its healthy roots. –Joe Kane*

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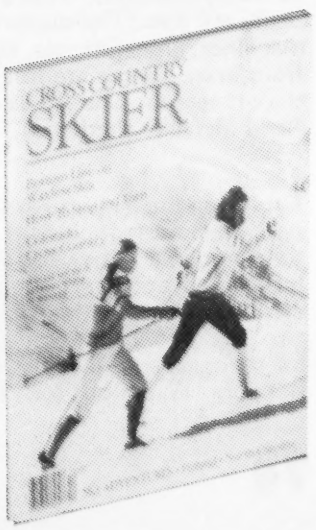
Microcrystalline

A relatively recent development by a Finnish ski manufacturer, this waxless system has a piece of plastic material in the middle third of the base that has an affinity for the water that exists in warmer snow conditions. It essentially eliminated the need for using the warmer of the two waxes in a two-wax system. The waxless insert is smooth to the touch, which should give this base excellent gliding qualities.

However, the microcrystalline base does not grip well in colder, drier snow conditions because there is no water present in a liquid state for the waxless surface to grip.



Cross Country Skier
Barbara Brewster, editor
$9.97/year (5 issues) from:
Cross Country Skier
P.O. Box 1203
Brattleboro, VT 05301

Survival of the Snowbirds

Snowbird here refers to a person who lives full time in a motor home, trailer, or other vehicle and follows good weather. I'm one of those (though not too concerned about weather), and I found the author's first book, **Home Is Where You Park It** *(same price, same publisher), useful. It was more or less aimed at itinerant workers — "boomers." This book is more for retired folks, but you are of course free to interpolate as required to match your own situation. Snowbirding, like everything else, is under assault these days. Rising fuel costs and campground fees and increasing restrictions combined with reduced Social Security and fixed pensions make real trouble for the breed. Other things that make trouble — banking, medical help, post offices, police, insurance, making money on the road, parking — are well worked over with an experienced hand by the author. She'll help the snowbirds survive for a while longer. —J. Baldwin*

Survival of the Snowbirds
Kay Peterson
1982; 221 pp.

$8.95 postpaid from:
RoVing Press Publications
Joe Peterson
P.O. Box 2870 MCAA
Estes Park, CO 80517

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RV Comparison

Advantages of a Motorhome:

1. Requires no hitching or unhitching, which is important for those with physical disabilities and for women traveling alone.
2. Easier to maneuver because coach and chassis are a single unit.
3. More security when boondocking since you do not have to go outside to get to the driving compartment. You can start the motor and drive off if concerned about safety.

By offering our services as an RV watchman, we were allowed to park on this construction site with electrical hookups.

4. Freedom of movement during travel because there is a walk-through aisle between driving and living compartments.

Advantages of a Travel Trailer:

1. Transportation is readily available without moving the living compartment. This means you do not have to take your entire rig if you go to the grocery store for a loaf of bread.
2. Initial investment is less because you are buying only the living compartment, which you can tow with an auto, pickup truck or a van.
3. More storage room. The storage inside the trailer and motorhome are comparable, but the trailer offers additional storage in the tow vehicle.
4. More flexibility in floorplan and length is possible especially if you consider the options of a Fifth-wheel trailer. . . .

The fifth-wheel is actually a hitch similar to those used on semi-trucks. This "fifth wheel" attaches to a plate which is mounted in the bed of a pickup truck.

Nomadic Books

*Kevin Kelly has written with seductive detail about trekking through Asia in general (***NWEC** *p. 400) and Nepal in particular (Fall '81* **CQ***). He always shows off a thorough knowledge of the literature; he describes the best travel books and maps of each country, and tells how to get them. Now he's put together a sparklingly annotated mail-order catalog of travel books for everywhere in the world — certainly worth a look before indulging any long-distance wanderlust. —Art Kleiner*

Nomadic Books
Catalog

free from:
Nomadic Books
P.O. Box 454
Athens, GA 30603

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Free Campgrounds, USA. Mary Van Meer, 1982, 631 pp.; $9.95 postage paid. That's right. 6,500 campgrounds that really are free. The owners earn their keep from laundry machines, groceries, gas, etc., or in the case of state parks, from taxes. Some are free year round, some only during the off-season. Should be companion volume to your Rand McNally road atlas.

•

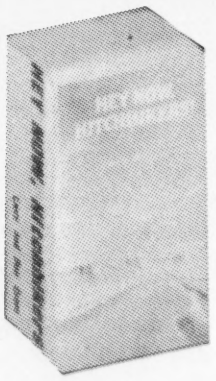
Exploring the Yukon River. Archie Satterfield, 1979, 130 pp.; $7.95 postage paid. If it has been one of your dreams to float down the Yukon River, looking for gold, fish, history, adventure, this here is the guide you need. You can leave off after the ice breaks up, on June 10th. Takes two weeks to do the initial part in Canada. The river sand bar maps are adapted from ones used by the old steamboat skippers. Watch out for Five Fingers Rapids.

Hey Now, Hitchhikers!

So hey this is the most useful guide to hitching around, and it gets right down to which states and cities are best and worst for hitching, as well as giving techniques and all sorts of other stuff that's good to know. What makes this book a lot different than others is that the authors have surveyed in an academic manner thousands of thumbers and compiled the results. It's good information! Now that cars can cost as much as 58 cents a mile to run, hitching is even more attractive than it was in the wilder '60s. And I'll admit that though I certainly qualify as an experienced hitchhiker, I learned some things here I didn't know. Like how prisons and mental institutions can lead to mysterious no-ride situations. The book is commendable and truly a gem. Even has sections for the ladies, by the ladies. —J. Baldwin

Hey Now, Hitchhikers!
Larry and Don Evans
1982; 642 pp.

$7.75 postpaid from:
Don or Larry Evans
2211 Menard Street
St. Louis, MO 63104
or Whole Earth
Household Store



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88% of the respondees had never been robbed while hitchhiking; of the remaining 12%, 9% had been robbed once, and 3% had been robbed more than once. Most people who were robbed had someone drive off with their pack, as or just after they got out of the car. So keep an eye on your pack.

Country bikes hit the big time

*The mostly Californian, lightweight, sophisticated, rugged "mountain bikes" have proven to be better for most uses than any other bike type you might care to name. Unfortunately, their development costs and custom manufacture require a rather high entrance fee, typically more than $1000. Too bad, for their stability and agile handling make them highly desirable. Now several big-time manufacturers have gotten into the act with competent machines that cost considerably less than the beautiful handmade jobs. Superficially, these bikes look like clunkers, but they are most assuredly not clunkers (***NWEC** p. 409). Even the Schwinn King Sting is a far cry from the overweight tankers of yore. The King Sting isn't the best of the new breed though — it needs some attention from your local bike shop before it can truly be called good. (Mostly because of wimpy brakes). But the Univega Alpina Sport is another matter. Oh my! It's about $600. For a bit more, you get a bit more, like sealed bearings in the Stumpjumper from Specialized. Either of these machines is just plain marvelous around town, and I am told that they may be preferred for touring with heavy loads. It's a revolution in the making, folks! These bikes represent a coming deluge of such bikes from many reputable manufacturers, and as competition increases and sales rise, prices will fall back to the reasonably-good-ten-speed level. I'm gonna get one soon. You'll probably get one (or at least want one) too after a brief ride.*

—J. Baldwin

Country bikes
Check your local bike shop

Stumpjumper
$500—$750 (approx.)
Nearest dealer information

free from:
Specialized
844 Jury Court
San Jose, CA 95112

Alpina Sport
$540 (approx.)
Nearest dealer information

free from:
Lawee, Inc.
899 Cowles Street
Long Beach, CA 90813

Stumpjumper

American Youth Hostels bicycle supplies and tours

These people have the cheapest bicycle gear and camping stuff I've found available by mail. They also offer a remarkable service: If you are on a long tour and lose a vital item or have a breakdown and need a part, you can call them and ask for emergency road service. They'll drop whatever they're doing and mail the needed item out immediately. You usually get it in two days. What a lifesaver!

—Kevin Kelly

AYH also offers bicycle trips, including a whole series of tours of China. You don't have to be a member to use their bike and camping catalog, but you do to take the tours.

—David Weissman

American Youth Hostels
Bicycle and camping gear catalog

Bicycle tour catalog

free
both from:
American Youth Hostels
Metropolitan New York Council
132 Spring Street
New York City, NY 10012

•

Entering China on an overnight cruise from Hong Kong or actually riding across the border from Macau, once in Guangdong (Canton) Province you'll concentrate your energies on exploring the most beautiful areas of southern China. You'll cycle to Foshan to visit a workshop where the fine Chinese art of paper-cutting is practiced and later tour a local commune. A silkworm farm will provide an interesting rest stop on the way to Xichiao. You'll have a vegetarian lunch at the Buddhist monastery in Shaoshing, and after the day's ride, a bath in the famous hot springs at Conghua will relieve all your little aches! You'll have the opportunity to hike the slopes of Seven Star Crags and explore the fascinating caves beneath the ground of this region which was formed, according to myth, when seven stars fell to earth.

	Visiting City	Land Only	Land and Air from New York	Land and Air from San Francisco
Oct. 2 to Oct. 21	Shanghai	$1629	$2758	$2642
Nov. 20 to Dec. 10	Beijing	$1799	$2928	$2812
Dec. 26 to Jan. 17 '83	Macau & Beijing	$2090	$3324	$3308
Jan. 31 '83 to Feb. 20 '83	Beijing	$1899	$3028	$2912

Indiana Camp Supply

A little-known company deserving mention is Indiana Camp Supply, Inc. Although primarily an outfitter for expeditions, their medical supplies and freeze-dried food selection compare with few companies I know of. On freeze-dried food purchases of $250 or more the discount is 25 percent.

A wide selection of other survival equipment and a huge selection of books are also available.

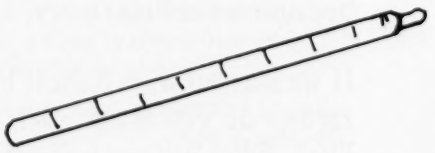
Service is excellent, shipped U.P.S. and delivered in about seven days anywhere in the U.S. Also, if you're planning an expedition you can have portions of your order delivered to prearranged post offices on prearranged dates of your choice at no extra cost.

—Kirk Lee Anderson, Jr.

A reasonably priced source for a wide range of backwoods medical supplies — from scalpels ($1.35 each) and sterile-packed suture material with needle attached ($2.25), to a wide range of useful nonprescription drugs, to a hypothermia thermometer ($10).

—Tom Ferguson, M.D.
[Suggested by Paula McKeown]

Indiana Camp Supply
Catalog
$1 from:
Indiana Camp Supply
P.O. Box 344
Pittsboro, IN 46167



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Hypothermia Thermometer
This is a true low-reading hypothermia thermometer. Generally, those offered in the United States by medical supply houses read only to 90 degrees F. This mercury filled medical thermometer imported from England reads as low as 70 degrees F and as high as 100 degrees F. It is packed in a screwtop plastic container, color coded bright blue, with a pocket clip. This case is ideal for field use. Limited supply. **$10.**

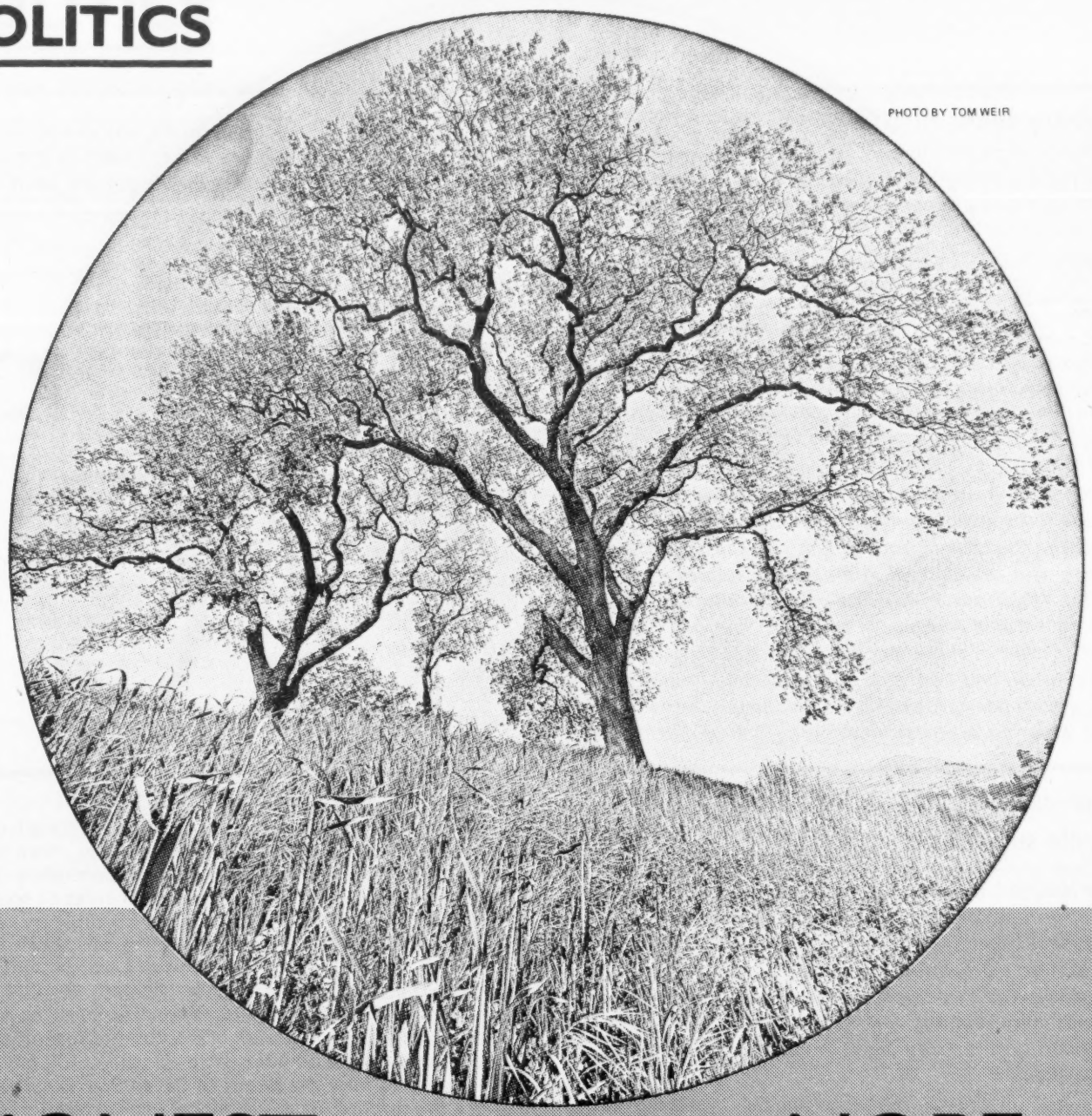

PHOTO BY TOM WEIR

HONEST HOPE

by Anne Herbert

I've been thinking about honest hope.

When we start to hope often we promise ourselves too much. If this one thing changes, we say, then it will all change – injustice disappear and no more lonely days, lonely nights, for anyone, for me.

The war ends, we/they get the vote, waking up each day stays too much the same, people find new ways to steal joy from each other.

Give up, hide, lost dreams turn to headaches because we refuse to cry.

If we started with honest hope, could we go farther do you think? What would honest hope be like? What can we honestly hope for?

Time. The lie often has to do with too soon. The hopeless (lazy) say, "It'll never happen," and the hopeful say, "Yes, it will, and soon" – turning to the angry "NOW!" Some of it does happen now, some never, but mostly it happens some odd kind of not soon enough. Not soon enough for the hoping workers to notice that it happened. They've given up or want so much more it doesn't matter.

Percentages of a single lifetime may be too short for honest hope to live in.

I don't know, words keep trying to fit together, honesty, hope, seeds, garden, forest. Who'd have guessed a seed would do that, get so large? To be alive you have to have the quick seeds, tomatoes to plant and eat, and corn. Easy to remember,

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After a long (5 years) association with **CQ**, *Anne Herbert got a contract with Random House to do a* **Rising Sun Neighborhood Newsletter** *book in cahoots with* **CQ** *Art Director Kathleen O'Neill, an activity which has kept her busy and happy for the last year.*

Creating a new literary genre while articulating timeless contemporary moral philosophy is no mean feat. But Anne weaves such extraordinary goods from skeins like truth in the conversation of friends and people in public places, time spent in bookstores, distinctive and enthusiastic reading, daydreams, musings, an abiding love of community, and looks deft.

–Stephanie Mills

if you remember to remember, that it was you that started this good thing happening not long ago. But also we need to plant the forests, and tend them, and leave space for them to tend themselves.

Assembly line time, we're trapped in making things fast that break fast and thinking that something has happened. That magic moment, ablaze in television lights, praised in jingle and slogan, when you stand in the store and buy the new doohickus, when you believe it's going to make the difference, that moment is short. Other moments, less famous, are longer. Kachunk, kachunk, I can't wait to leave, where's oblivion – moments of making the shiny object go on a while, and there are many of them.

Then there's Christmas afternoon and it breaks. Even if it doesn't break, or not as soon as Christmas afternoon, it doesn't come close to touching your store hope. It doesn't *change* things. That short hope breaks in the many moments of the thing bored people made aging, but sometimes I don't notice because I'm on to other hopes, the next great purchase.

Tree time. Tree time takes longer. Trees, when they grow up, you don't think if you still like them. Your opinion is not the point. Tree time takes learning in a group of people like us where the rhythm of life has been determined (baba – boom, baba – boom) by tightening ten lugs a minute and on to the next car. If we're lucky we don't work there, but we measure our luck by how many things we can buy that were made there, and how fast we can buy them.

Pea pod time could teach you tree time. Fresh vegetables from the garden take longer than "this factory turns out twenty seven hundred gadgies an hour" and are part of a species long love affair with your mouth, take a while to happen and don't let you down. It's hard to remember how good they taste and then they wake up green pleasure cells you didn't know you had, the opposite of the third dent on the car and watching the dust settle on the electric knife sharpener.

Growing stuff with curves might match time more than building stuff with angles.

Honest hope and true time.

Real, slow-growing, long-lasting, hard-standing changes, like trees, never come up and pat you on the head and say, "You did it, kid, you made me possible, and you're terrific and I'm grateful as hell."

Because: 1) you might be dead by the time they're big and tall and you'll surely be different than when first hope caught you; 2) something that substantial you weren't the only variable that varied to make room for it; 3) trees and big changes aren't interested in personalities, even yours.

Honest hope. Plan to get your warm fuzzies someplace else. (What are friends for?) Hope that melts things and makes them new is as huggable as a flame. But warm at the right distance. The right uses of hope and the right distance. Get too close to the campfire, you get blisters, you get wounds. Stare at the flicker too long, you get crazy. Warm your butt and move it. Get to work. ■

The Hundredth Monkey

•

There is a phenomenon I'd like to tell you about. In it may lie our only hope of a future for our species! Here is the story of the Hundredth Monkey:

The Japanese monkey, *Macaca fuscata*, has been observed in the wild for a period of over 30 years. In 1952, on the island of Koshima, scientists were providing monkeys with sweet potatoes dropped in the sand. The monkeys liked the taste of the raw sweet potatoes, but they found the dirt unpleasant.

An 18-month-old female named Imo found she could solve the problem by washing the potatoes in a nearby stream. She taught this trick to her mother. Her playmates also learned this new way and they taught their mothers, too.

This cultural innovation was gradually picked up by various monkeys before the eyes of the scientists. Between 1952 and 1958, all the young monkeys learned to wash the sandy sweet potatoes to make them more palatable. Only the adults who imitated their children learned this social improvement. Other adults kept eating the dirty sweet potatoes.

Then something startling took place. In the autumn of 1958, a certain number of Koshima monkeys were washing sweet potatoes – the exact number is not known. Let us suppose that when the sun rose one morning there were 99 monkeys on Koshima Island who had learned to wash their sweet potatoes. Let's further suppose that later that morning the hundredth monkey learned to wash potatoes. THEN IT HAPPENED!

By that evening almost everyone in the tribe was washing sweet potatoes before eating them. The added energy of this hundredth monkey somehow created an ideological breakthrough!

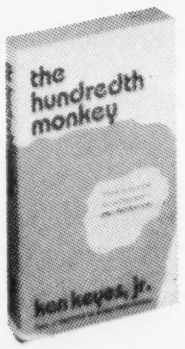
But notice. The most surprising thing observed by these scientists was the habit of washing sweet potatoes then spontaneously jumped over the sea. Colonies of monkeys on other islands and the mainland troop of monkeys at Takasakiyama began washing their sweet potatoes!

Thus, when a certain critical number achieves an awareness, this new awareness may be communicated from mind to mind. Although the exact number may vary, the Hundredth Monkey Phenomenon means that when only a limited number of people know of a new way, it may remain the consciousness property of these people.

But there is a point at which if only one more person tunes-in to a new awareness, a field is strengthened so that this awareness reaches almost everyone! . . .

Whatever that critical number is, you are needed to save our civilization. —Ken Keyes, Jr.

That quote is from an easy to read, profound, cheap book about making the difference that stops the wars. **The Hundredth Monkey,** *Ken Keyes, Jr. (1981; $2 postpaid from Vision Books, St. Mary, KY 40063 or Whole Earth Household Store).* —*Anne Herbert*



The Mo Tzu Project

Personal National Peace-finding

by Marlow Hotchkiss

"When I was a boy I wanted to get a Jew, cut it into little pieces, and give a piece to each of my friends. Now I feel that Jews are better than brothers."

–The Egyptian driver who took us to Sadat's tomb and later drove us from Cairo, across the Sinai desert, to Israel

"For the first few months in Vietnam we would cut the ears off enemy dead for souvenirs. But after a while we stopped. If I had the money, there's nowhere I'd rather go now than Vietnam. It's the most beautiful country, with the most beautiful people, I know."

–An American Vietnam veteran

IS THERE A WAY, this side of war, of bringing about such changes of heart? Where hostility exists, and willingness to enter into negotiations is lacking, how can such willingness be created? How can a drift toward belligerence be slowed and reversed? How can we convert relationships of domination/victimization into relationships of equality, mutuality, and reciprocity? How can we change enemies into adversaries, adversaries into rivals, and rivals into partners? What will it take for humankind to set aside war? What must we do to bring ourselves of age? Can we imagine a better "game" than war? What would you do if all war, and all threat of wars, disappeared?

In the summer of 1981, John Steiner and David Hoffman phoned long distance to Bob Fuller in Washington state. After five trips around the world and years of hands-on experience with conflict situations in Vietnam, Seattle's ghetto, and the Soviet Union, Bob was temporarily living in the country, sorting out his life.[1] John and David were calling with a question. California Governor Jerry Brown had suggested that the Regents of the University of California create a peace institute. Fearing yet another academic study group, the two asked Bob, what was *really* worth doing? What would make a difference? The search that summer for the essential questions and for some way to begin to answer them led Bob to conceive the Mo Tzu Project.

My own involvement began a few months later. On the eve of departing for a conference of millionaires who were looking for truly effective ways of funding peace on Earth, John patched Cynthia Jurs and myself into a conference call with Bob up in Washington. In a half-hour conversation I understood the underlying premise of the project and realized that I had found the vision I was looking for. In that brief conversation I saw a way to move from merely thinking about war and peace to actually doing something about it. In the coming months I was to watch others make this same excited shift.

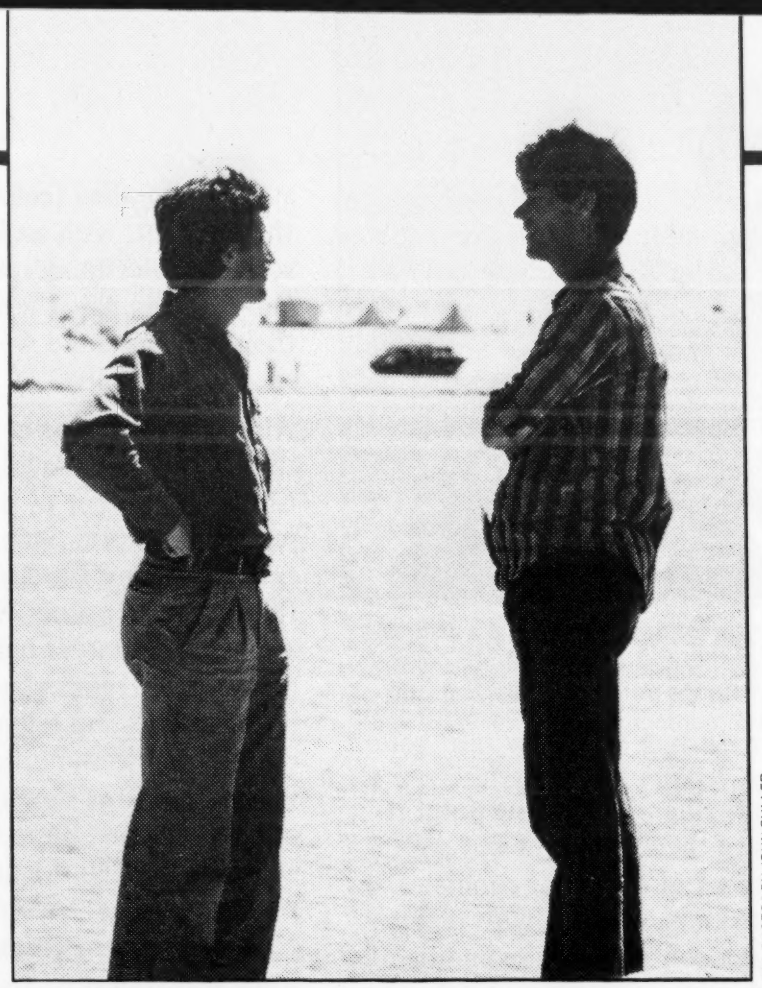
The name of the project invokes the spirit of Mo Tzu, perhaps the world's first "shuttle diplomat." In the fifth century B.C., during the time of Chinese history known as the Warring States period, Mo Tzu and a few of his followers – who believed in universal love – would travel on foot to the sites of developing conflict among the various feudal "states" and there attempt a kind of diplomatic aikido. If the opposing parties would not agree to sit down together, Mo Tzu would join the weaker, train them how to withstand a seige, and then again sue for a negotiated solution. Precisely what his magic consisted of is not known, but his willingness to personally commit himself to a vision of a unified world is inspiring.

1. For a recounting of Bob's family's journey to the U.S.S.R. and their insights into Soviet society, see "Our Enemies, Our Selves," Spring 1980 CQ.

You wish to make peace? Make peace. In the Mideast, in Ireland, amateurs can wade in where angels fear to tread and by their very directness surprise war, tempt it with a grander complexity than conflict, a more heroic endeavor.

The trip chronicled here took place shortly before the Israeli invasion of Lebanon. *–Stewart Brand*

On April 1 of this year, Bob and his wife, Alia Johnson, and their two children boarded a plane for Cairo, together with Karen Fuller and John Fuller, a photojournalist along to document the trip. Cynthia and I joined them two days later. David Hoffman met us in Jerusalem in mid-April. Our video team caught up with us in Dublin in early May. We were a total of twelve people.[2]



ALL PHOTOS BY JOHN FULLER

By the Suez Canal, a shockingly narrow body of water, Marlow Hotchkiss and Bob Fuller on the west side

Our goal: an initial experience-gathering, shakedown trip to the Mideast and Northern Ireland. Our metagoal: to invent a better "game" than than war.

Our purpose was to test ourselves and our ideas.

To listen and learn. And where possible, to seek out and link up with those individuals who were themselves healers and networkers at a metanational level. Specifically, we went to the Mideast at this particular time to immerse ourselves in that conflict and to assess firsthand the emotional and political impact of Israel's return of the Sinai Desert to Egypt, as provided in the Camp David accords. And then onto Northern Ireland, calculating that direct personal experiences of two particular conflicts would, when compared, reveal some more universal, and usable, truths about warring.

It felt like no accident that within days of our arrival in Jerusalem, Bob followed a lead and met with Meron Benvenisti, a former deputy-mayor of Jerusalem who had finished, just the week before, a Ph.D. thesis with Roger Fisher of Harvard University's Negotiation Project, comparing the conflict in Israel with the conflict in Ireland. For us this contact was immediate, intimate, and important. His compassion and his metanational perspective are a model for other world leaders.

The meeting with Benvenisti confirmed the rightness of our itinerary and our commitment to ex-

2. The makeup of our group was an interesting hodgepodge of talents and backgrounds, united by a common notion that individuals can make a difference in this world. Systematically, we were as follows:
Bob Fuller, 45, ex-theoretical physicist, ex-college president, father;
Alia Johnson, 34, poet, coeditor of **Evolutionary Blues**, mother;
Noah Johnson, 5, poet, grand inquisitor;
Adam Fuller, 3, would-be terrorist;
Karen Fuller, 21, graduate student in political science, specializing in China;
John Fuller, 35, filmmaker, photojournalist;
Cynthia Jurs, 26, healer, researcher on shamanism;
Marlow Hotchkiss, 43, ex-theater director, ex-conference director, father;
David Hoffman, 38, antiwar activist, coeditor of **Evolutionary Blues**;
Sarah Conover, 26, video producer;
Kim Spencer, 34, media networker, director of Internews, a television and cable production company;
Evelyn Messinger, 31, video editor, director.

Captured Egyptian (Soviet) tanks in the Sinai are used as targets by the Israeli army and air force.

Sahd, the Egyptian driver who wanted to cut a Jew, and Adam Fuller. Sahd's family lost many to the '67 war. Diplomats without portfolios but with three-year-olds make a different kind of contact.

ploring these issues firsthand. At some point it becomes dangerous to theorize about war and peace from the comfort of our living rooms. Dangerous because we risk losing touch with reality. In the middle of these conflicts, in the middle of these landscapes, when we are surrounded by the smells and colors and shapes of these people so different from ourselves, thinking itself becomes different, as do the thoughts. We discovered again the need to open ourselves, to let in the strange and alien feelings, to identify, if only for the moment, with an Israeli's grief for a fallen son or a Palestinian's grief for a lost homeland. Only by joining, at least for the moment, in their feelings could we hope to speak back into these people's lives.

Alia developed a brief but significant relationship with Raymonda Tawil, Palestinian journalist, Christian, mother of six, a European-educated woman who is at once a loyal Palestinian and a friend to many Israelis. Alia: "Raymonda is a full-hearted heroine. She was an inspiration to me. Our talks kept being interrupted by developments in the tense situation there, police and bomb squads and telephone calls, but a moment of profound communication occurred when we talked about the new feminist books and the copy of **Evolutionary Blues** I had given her.[3] The day we left Jerusalem for Ireland, a person from The Women's Voice, a women's center in Jerusalem, delivered to her a poem I had written about her work which begins:

3. **Evolutionary Blues: An Interhelp Quarterly**, David Hoffman and Alia Johnson, editors; $14/year (4 issues) from Evolutionary Blues, P.O. Box 40187, San Francisco, CA 94140.

DIASPORA

(Excerpts from a letter to John Steiner from Marlow Hotchkiss upon the return of the Mo Tzu team from the Mideast in May, 1982.)

Dear John,

In the Holyland the battle between Good and Evil rages on. Someone lost the scorecards, however, and now no one can tell who is on which side . . . .

Retracing the Exodus, we traveled through the Sinai Desert from Egypt to Israel. Two weeks later, the Sinai itself traveled from Israel back to Egypt without even moving one stone. No matter which flag flies over this land, the Bedouins still bury their turds, like cautious cats. The Bedouins bring a nonpartisan continuity to the history of this place. Yes, this land is holy. But not exclusively so; as the astronauts discovered, and as any Indian has always known, *all* land is holy. Yet here the Jews and Arabs, the children of Isaac and the children of Ishmael, both seem to feel that they separately hold the Divine Deed of Trust to this real estate and so rampage about, with transits and rifles, drawing and redrawing invisible political lines in the moving sands, unable, even with barbed wire and land mines, to deny the awe-inspiring bioregional integrity of the place.

. . . The Jews are indeed a chosen people, but they have woefully underestimated the dimensions of the chosen land. It is planetwide. For 4000 years, every time the Jews have come close to establishing a bona fide *physical* homeland, *in situo*, attached to the rocks, for more than three or four generations, God has swooped down and sent them running. It is at least possible that the combined message of 4000 years of dispersal is: Don't get too attached to the rocks! You have a mission to the world!

Shlomo Breznitz told us that Jews are a world superpower. The contribution of Jews ranges from monotheism to nuclear energy. It encompasses the subtlest insights into the nature of matter and reality and extends to music, literature, economic systems, science, political philosophy, and psychology. For thousands of years, Jews have shown that it is possible not only to survive, but to flourish, create, contribute, and grow *without* a nation, without a political state. And this in spite of the worst examples of inhumanity on record, in spite of the worst prejudices, the worst discriminations, the worst genocidal acts in our planet's history. The Jews have proven that, against all odds and for thousands of years, a people can sustain themselves and contribute to the world without a national identity. In fact, the recent 33-year history of the state of Israel seems to me a tragic paradigm, telescoping what often takes centuries into three short decades, the degeneration of the high moral challenge Ben Gurion invoked at the beginning into the hyper-nationalistic behavior of racism, book banning, terrorist raids, news censorship, martial law, the ghettoization of the Palestinians, inquisitions, and paranoia mongering. And all of this is merely a holographic fragment of the prevailing degeneration pointing at a planetary holocaust.

Raymonda, you alchemist –
you transform hatred;
you stuff the mutant fruits of conflict
into the crowded basket of your heart;
you carry these heavy fruits
until you have the strength to eat them,
to digest them in your aching body
and reveal them
in your mind's light . . ."

We found one person who very much shared our values and perspective – a welcome change in a land fraught with ideology. Professor Shlomo Breznitz studies human stress and the role of hope in the healing process. He had just completed an international conference about the shape of the world in the year 2000. The most moving thing this man told us was the story of his project to organize his friends to deliver in person, in their own Land Rover, relief food to the starving in Kenya. He knows that such actions are only symbolic relative to the immensity of the need, yet he knows also that the effort transforms the giver, and that transformed lives continue sending needed signals forever.

These descriptions leave out crucial interactions with many people. For example, David Shipler of the **New York Times**; Simcha Flapan of the Israeli journal **New Outlook**; the "deposed" Mayor Tawil (no relation to Raymonda) of the West Bank town of El-Bira; Dr. Ruth Gavison, head of the Human Rights Movement in Israel; former General of the Israeli Army, now professor of Arabic literature, Matti Peled; former secretary-general of the Labor Party, "Lova" Eliav; and Jerusalem's mayor, Teddy Kollek, as well as dozens of "regular" people.

In a nutshell, what we did in Israel was to identify the 43, or is it 57, people who, in the sense of a web, represent the country. Of course there are important omissions – the full web may have 97 nodes. But we got to that point where the person we were talking to recommends that we see A, B, C, and D, and we've already seen B and C, so we go see D and he tells us to see A and B, and it all begins to close on itself like a mathematical structure. The shape and structure of Israel's political and moral dilemma became clearer. Having identified the web, and having seen the issues, we could then inject an idea or a question into the network and almost see it reverberate around. In many of these interactions, we felt that our contribution, if any, was not at all in a

(*Holocaust*: from *holo*, whole, plus *kaustos*, burnt; a spiritual offering, the whole of which is consumed.)

. . . The irony is that this history, the story of the Diaspora, contains the seeds of a possible answer to our present danger, the threat of nuclear annihilation. The model of the Diaspora, or rather of a massive, *consciously* undertaken dispersement of the richest, most creative, most compassionate and visionary, as well as the most serving and supportive and generous aspects of *any* and *all* of our world's cultures, could radically shift the thrust of our collective behavior from war making to healing, that is, to making whole again the bond of our common humanity and this humanity's bond with the force of life on this planet.

I'm writing to you, John, as a brother in kind, as a peace activist and planet healer, and as a Jew. You, more than anyone, have moved me beyond a concern with our nation's well-being to a concern for all nations, for the planet. You once remarked, "We are all Jews now, in a way; we are all victims of a possible holocaust, the holyland has been taken away from us, no one is 'free.' " I no longer feel my nation represents me. I too have lost my homeland, yet I haven't moved. My identification with the Diaspora is deep.

Anyone, real Jew, or "circumstantial" Jew alike, with the direct personal experience of living their daily lives and making a contribution to those around them *without* the traditional underpinnings of a national identity is in a powerful position to be a guide on a journey beyond nationalism into identification with and service to the whole Earth. Planetary citizens. Who better can speak to the problems of family unity, cultural continuity, and the need for an ongoing sense of personal worth than the "victims" of the Diaspora? "Victims" here in quotes because it is precisely the shift from victim to creator that is being invoked. It is the shift from operating inside of divisive political boundaries, with all of the attendant *us-and-them* mentalities, to operating as part of a larger whole for the benefit of all the parts.

I know that you, with your experience as a networker and project supporter, can visualize the steps from the philosophies underlying the metaphor of a consciously chosen Diaspora to the concrete day-to-day logistics needed to make something on this scale a reality. Who are the people, John, who see security in terms of *mutual* security, and who can behave in a compassionate and integrated way?

Who are the people who can lead us in the nuts-and-bolts tasks necessary to inspire enough people to relocate themselves, both physically and spiritually, in the name of creating a worldwide "we feeling"? What would the steps look like on the way to a Peace Corps of planetary proportions?

In Israel we met with Adin Steinsaltz, a physicist turned rabbi, who is singlehandedly translating the Talmud into modern terms. He points out, "Your life is not complete unless you perform a mission of saving the world in a bigger or smaller way." Our travels in the Mideast, and the recent escalation of egotism north of the Lebanese border, confirm for me the urgency of pursuing this line of thought further and of translating it into concrete, doable tasks. . . . □

In Londonderry (Derry to the Irish) British riot squads keep the "peace."

It is not for a lack of brilliant negotiators, humane legislation, and committed protestors that war persists.

particular message, but in the medium – in the fact of the project's very existence and peculiar approach. We were able to penetrate into the heart of the network of Israelis who could best inform our work, and who could, in turn, benefit from the perspective which Mo Tzu represents, not in the form of opinions uttered or advice given, but rather in the form of questions asked from a surprising or metanational point of view.

METADIPLOMACY

Some of our initial effectiveness in getting to see people and in moving quickly to a challenging level of dialogue once in the door comes from the very fact of the project's existence itself.

We are a small band of individuals, without any official group identity, traveling thousands of miles for months at a time, and at our own expense or with private funding, without government sanction, sans portfolio as it were, and coming only with questions rather than policies or advice, and speaking to that part of each person, beneath the public persona, that yearns intimately for a life with meaning, that knows there is something to contribute. Although at this point we are all Americans, we do not represent the United States in any nationalistic sense. We were not sent by the State Department. In both Israel and Ireland, after an initial flurry of confusion about the name of our group and who sent us, there was often a sigh of recognition, as though we had been awaited, and then an easy settling-in in order to talk about the really important things in life. People were grateful for our genuine desire to listen. The result was often an opening of the heart into which a new thought or image or possibility could enter.

In Ireland, using the opportunity for a television interview, David Hoffman set up a meeting with Dr. Garret Fitzgerald, until a few months ago the prime minister of the Irish Republic. Bob did the interviewing, with Kim on camera and Sarah and John on backup. Bob opened by describing something of our own work in Ireland and Israel and then began to ply Dr. Fitzgerald with questions. At one point, Fitzgerald sat up and remarked, "Why this isn't an interview at all, is it? This is rather discursive." Drawn into genuine dialogue, Bob and the prime minister explored the problems of war and peace. Sitting in the family room and surrounded by children, their encounter had an intimacy not usually found in interviews with politicians. When Bob obliquely suggested that Dr. Fitzgerald's passion to overcome the polarization and violence his country was suffering was related to his desire to resolve a conflict between his Protestant mother and his Catholic Republican father, tears came to the prime minister's eyes. As he brushed these aside, there was a warm acknowledgement that they had touched on the heart of the national dilemma.

It was a memorable interview for us all and will be an important part of our television documentary. It was moving to meet a wise statesman. And it was a valuable experience for Garret Fitzgerald as well. As Bob acknowledged, he was not just talking to his beloved Ireland; he was setting forth guidelines that could help resolve conflicts all over the world.

At first glance, Mo Tzu work looks like what has come to be called "track two diplomacy." Track *one* is, of course, the official State Department activity, with its attendant posturing, calculated news leaks, bluffs and threats of force, and endless closed-door meetings and secret headline tradeoffs. "A second diplomatic track can therefore make its contribution as a supplement to the understandable shortcomings of official relations, expecially in times of tension. Track two diplomacy is unofficial, nonstructured interaction. It is always open minded, often altruistic, and . . . strategically optimistic. . . . Scientific and cultural exchanges are examples of track two diplomacy."[4] While often unofficial and nonpartisan, these cultural

4. The phrase was coined by William D. Davidson and Joseph V. Montville in the article "Foreign Policy according to Freud," in **Foreign Policy**, No. 45, Winter 1981-1982.

The critical steps involve: (1) identifying and embracing the problem, (2) creating alternative images of healing, and (3) repeating the process.

In Ireland David Hoffman and Sarah Conover do a man-kids-and-horse-in-the-street interview.

exchanges and scientific partnerships tend to be co-opted by national policy. Conventional track two diplomacy suffers, as the metaphor suggests, from being parallel to official track Number One diplomacy.

The Mo Tzu Project, and a growing number of related efforts, such as the Esalen Soviet-American Exchange Program, directed by Jim Hickman, and International Physicians for the Prevention of Nuclear War (IPPNW), operate outside of particular nationalistic goals and, in fact, are specifically focused on transcending the egolike defensiveness of modern nationhood. The physicians' group is a case in point. A little over two years ago, two doctors met at a conference, one a Russian, the other an American, both cardiologists, doctors of the heart. Out of their growing friendship a total of six doctors came together and founded the international organization, which is modeled after Dr. Helen Caldicott's Physicians for Social Responsibility. Since then, the IPPNW has grown to over 30,000 affiliated physicians. The group of six appeared on Soviet TV, the *only* such appearance of Americans ever to be featured on Russian television. The group did a **Last Epidemic**-style presentation of the consequence to a Soviet city of a nuclear detonation.[5] The response of the public and the press was almost overwhelming. Something is happening now in the Soviet Union which has caught the government with its expectations down. They're not sure whether they want to support a grassroots antinuclear movement or not. And the whole affair grew out of the intimacy and trust of the friendship between one Russian and one American. Most American and Soviet policy makers have never personally met their counterparts. Most high-level American officials do not have any intimate Russian friends and have never visited the Soviet Union. What do you suppose would happen if . . . ?

5. Kim Spencer's company, Internews, has arranged for a translated version of this Soviet program to be aired October 13 on PBS. Check your local listings.

PSYCHOTECHTONICS

Bob Fuller: "In my early twenties, I studied and worked with many of the physicists who first built nuclear weapons. The knowledge that these weapons work, how they work, and what they can do is lodged within me. When that secret knowledge sits side by side with the 'secret' that human beings love war, as well as hate it, one is driven to look for a way out. That old familiar impulse to escalate violence has come to a screeching impasse against the 'nuclear ceiling.' People sometimes want to fight, and when they fight things sometimes get out of hand; but with nuclear weapons, to let things get out of hand is to commit suicide.

"Everything changed when we saw the planet as one place. The view from space of the Whole Earth, plus our global communications, have produced an awareness of the underlying geographical and biological unity, which in turn is forming a psychological and spiritual unity. This is a more fundamental development than the Bomb. The real issue isn't the Bomb.[6] The Bomb is an occasion, albeit a compelling one, forcing us to reexamine our impulse to fight. The Bomb has made the 'game' of war as unsafe for spectators as for players. The Promethean theft 40 years ago of God's nuclear fire is forcing us to reheed His commandments.

"Even greatly reducing the nuclear arsenals would still leave the world completely unsafe: nuclear weapons will soon become available to many more nations; conventional arms have become unconventionally lethal; and chemical and biological warfare are developing rapidly. Making the Bomb the issue and disarmament the goal has only brought us to the point of realization that it is we ourselves that are the source of danger. No one will win the arms race, nor will anyone drop out. The arms race is a race with our shadow. We can

6. See **Stopping the Unthinkable: The Opponents of Nuclear War**, by Alia Johnson, Fall 1981 CQ.

The arms race is a race with our shadow. We can never outdistance the fear of that part of ourselves we have projected onto others.

never outdistance the fear of that part of ourselves we have projected onto others: Americans on Russians, Jews on Arabs, Protestants on Catholics, whites on blacks."

Negotiation is not a real alternative to war. It is almost impossible to negotiate successfully with one's own projections. At best it becomes a means of postponing or sidestepping a given confrontation. Secret encounters between elite representatives rarely satisfy any of the deeper social and emotional needs of the population at large. More often than not negotiations lead to compromises and sellouts, such as the Camp David accords, where the more material (and mercenary) side of the equation – i.e., oil, dollars, arms, technologies, etc. – are opted for at the expense of personal self-esteem and national pride. What three million Israelis bought with Camp David and the Sinai was a promise to have 40 million Egyptians stay out of the war in Lebanon two months later. Most Israelis we spoke with remained suspicious and mistrustful of Egyptian motives, and many were deeply angry and ashamed at being forced – as they saw it – into returning the Sinai and abandoning Israeli settlements. If Camp David worked as conflict resolution, it did so at the expense of the Palestinians and with deep psychic damage to Israeli pride; and the conflict which was suppressed in one area seems to have erupted in another, like a systemic cancer being treated with iodine wherever it surfaces.

It is not for a lack of brilliant negotiators, humane legislation, and committed protestors that war persists. War, at least the old-fashioned war, has thrived because it addresses, if only in the short term, many of the deepest needs of collective groups of people, whether families or nations. And further, warring's ability to fulfill needs for individual self-esteem and a sense of national purpose is reinforced by a dynamic of deeply imbedded mental pictures and beliefs which color and influence our subtlest thoughts and actions about war.

What is needed, then, is a shift at the most radical level in how we perceive ourselves and the purpose of our lives. The nature of this shift and the nuts and bolts steps needed to bring it off at the level of a worldwide project is at the heart of the Mo Tzu work.

Our behavior, both personally and nationally, happens inside a structure of beliefs, unconscious assumptions, ingrained habits, and predispositions. This structure of invisible patterns shapes our thoughts and behavior, which then contribute yet more habits and beliefs to the structure, shaping it in turn. This classic chicken-egg cycle operates out of sight and out of mind, and thus is completely "out of control" in a rational sense. In a nonrational sense, however, it is possible to knowingly change what we don't know. It is possible to change our minds about war.

Changing our human-racial mind about war, intervening in this increasingly deadly cycle of beliefs and behavior, requires a very special kind of aikido, of blending and redirecting. As with all living systems, not all points are equally susceptible to intervention. And not all interventions will have lasting or beneficial consequences. Once the English and Argentines start shooting at each other, it is too late to intervene in their basic perceptions of each other. But in the case of the smoldering conflicts in Northern Ireland, or the cold wars among the superpowers, the field is ripe for intervention. The experience on which our Mo Tzu efforts are based points to the structure of unconscious beliefs and assumptions, which we are born into and unknowingly pass on to our children, as the most viable entry point at which to intervene in the cycles of nationalism, aggression, arms races, and warring.

Winston Churchill observed, "We shape our buildings; then they shape us." The architecture we live inside of literally determines where we walk,

where we sit, what we can see and hear, how loud we can talk, how public or private we can be, and much of what we think and feel. And just as architectural space shapes our behavior and feelings, so there is an invisible architecture in the mental world shaping not only our thoughts and actions but our very perceptions of reality, of what's possible. *Psychotectonics* is the name Bob has created to describe the world mind, the whole of the structure of subconscious images, a phenomenon as enormous as the continental drift of tectonic plates, making up the edifice from which we view reality and even ourselves. We look out at life through the windows of perception from deep inside the temple or prison of our own pictures of reality. Normally we do not see our own eyes, the cornea and retina; we simply see what we are looking at. That there are "colors" in the spectrum of electromagnetic wavelengths that we cannot see escapes our notice. It is hard to know what we can't see, because we can't see it. The structure of our eyes limits and defines what we can observe. Likewise, we are normally not aware of our thinking; we simply have thoughts. And that these thoughts are limited by the structure of our "thinker" goes unthought.

An understanding of how our collective psychotectonic behavior/belief loops operate is absolutely crucial to bringing about any radical shift in our warring behavior and to any projects or peace movements directed at ending war. The efforts of lawmakers, negotiators, and protestors that try to change our warring activities without addressing the underlying psychotectonic determinants are simply greasing the karmic wheel, leaving us to repeat (and escalate) the horrors of the past. Conflict resolution, by participating in a system of checks-and-balances with hot and cold wars, functions as a kind of governor mechanism keeping the engines of destruction operating within tolerable limits. It is part of the machinery.

We need to remodel, not merely redecorate, the structure of our subconscious notions about who we are and how we get what we want. And we need to act fast.

The kind of psychotectonic shifts we are envisioning require that we go back to the original blueprints in order to successfully remodel our warring behavior. The blueprints in this case are the specific subconscious images we use to formulate our conscious ideas and actions about war. Some of these "basic truths" which we have created and which give rise to war might be stated as follows:

- There is not enough (food, love, time, money, land, etc.) for everybody.
- For me to win, you must lose.
- War is natural and inevitable.
- Differences are bad.
- There is a point where "I" leave off and "You" begin.

These and other notions lead to the too-familiar experience of separation, alienation, fear, and war. For those of us outside the Falklands/Malvinas crisis, Britain's and Argentina's behavior threw into tragic relief the underlying assumptions about how nations should act in the face of differences. From our easy viewpoint we could almost smell the dust rising from the antique Victorian engine of war as it was wheeled out of the attic. Only now, the same psychotectonics has armed itself with ICBMs and MIRVs, and in a war between the superpowers, there will be no one left to watch the evening news.

The depth and power of these subconscious images are so great and so much a part of our way of acting that we rarely notice them in ourselves. It is sometimes possible, however, to jar ourselves into seeing these patterns by immersing ourselves in someone else's conflict. This is what led Jerusalem's deputy-mayor, Meron Benvenisti, to pull himself out of the Arab/Israeli struggle and go to Northern Ireland in the hope of jolting his perceptions into a new understanding. This aspect of Mo Tzu work can only be done in the field, in the hot spots, as it were, for it is precisely the unsettling, confusing, culture-shocking differences met when grappling firsthand with a foreign culture and an alien conflict that crack open the doors of perception. Once opened, it is possible to glimpse some of the basic images on the blueprint which need to be changed.

The task then is to identify the psychotectonic images which, in a nuclear age, no longer serve us and which are propelling our species toward suicide, and to replace them with images which will promote healing on the planetary level and which will lead to the creation of a "we feeling," as Doris Lessing calls it,[7] that will embrace the peoples of the world.

We are at the "brinkmanship" stage of human evolution. The short-term solutions of conflict resolution and strategic-arms limitations are running out. There is now no difference between short-term and long-term answers. The *only* possibility, short of divine intervention, is a quantum leap for humankind; the creation, in the next decade or two, of a sufficient "we feeling" so that our various nations' sense of security and well-being is *experienced* as *mutual* security and *mutual* well-being. One for all and all for One. The One being, of course, our Mother Earth.

What would such a project look like? What would its budget be? How long the timeline? What are the strategies and tactics needed? Who will define the essential questions? Who will answer?

These are the questions to be answered, and they

7. See **Shikasta: Canopus in Argos-Archives**, by Doris Lessing; 1979; $10.95 postpaid from Alfred A. Knopf, Inc., 400 Hahn Road, Westminster, MD 21157.

are no longer academic or philosophical. They are a matter of survival.

A body of knowledge, a technology, if you will, of how to create a psychotectonic shift has been developing simultaneously with and parallel to the development of the Bomb. Such seemingly divergent fields as high-energy particle physics, holistic cancer research, and numbers of spiritual and meditative disciplines have supplied us with insights into how we can change our own minds. The common thread which links these disciplines is a DNA-like entwining of two empirically demonstrable truths: everything in the universe is interconnected, and mental images create and alter physical reality. It has been demonstrated that our mental images can affect the behavior of subatomic particles, cancer cells, and human suffering. A new blueprint for how human beings deal with differences needs to be created. The means: replace the unconsciously generated images of separateness and hostility on the blueprint with consciously intended images of wholeness and cooperation. I am talking, of course, about love.

In this sense, the road *from* Hell *must* be paved with good intentions.

The power of consciously intended pictures, images, and visualizations to alter our behavior and our reality has been available to humanity for some time. Ancient yoga techniques can directly affect body metabolism, heart rate, and bleeding. The most dramatic examples today come from the relatively new field of holistic medicine. Clinics are teaching visualization techniques to deal with everything from stress to tumor reduction and tissue repair. The methods are simple and straightforward. In the case of cancer, for example, the patient might be instructed to create a picture in their mind's eye of a tumor, with as much detail and anatomical accuracy as possible, and then to begin to imagine specific gradual changes and reductions leading to images of a whole and healthy body. The procedure would be repeated many times, perhaps over a period of many weeks, until the body's own healing process was mobilized. The critical steps involve: (1) identifying and embracing the problem, (2) creating alternative images of healing, and (3) repeating the process. And the cells respond.

Translating this process from the personal to the planetary scale is not as great a leap as it might first appear. The mechanisms are essentially the same, and any process which involves transforming the basic lenses through which we view reality is ultimately an intimate process, taking place inside you and me. The goal is not to change our policies about war by coming up with new policies but to change our warring behavior by changing ourselves. Healing. The word comes from Indo-European and Greek roots (*kail*, *koil*) by way of Old Middle German (*heil*, *heilen*) and means to make beautiful, to make whole. This is humankind's job now, to make whole and beautiful our planet.

To bring about such a shift at the psychotectonic level is a challenge worthy of our best leaders and philosophers. We will need to enlist the genius of committed psychologists, artists, filmmakers, media people, painters and poets, actors and playwrights, rabbis, priests, and gurus – all the image makers. The content of this shift will be a new set of healing images with which we *replace* our existing paradigms of dualities and warring. The emphasis here on *replacing* war with alternative activities and images, as opposed to simply doing away with war, is critical to our survival.

A Better Game than War

We shall not flag or fail. We shall go on to the end. We shall fight in France, we shall fight on the seas and oceans, we shall fight with growing confidence and growing strength in the air, we shall defend our island, whatever the cost may be, we shall fight on the beaches, we shall fight on the landing grounds, we shall fight in the fields and in the streets, we shall fight in the hills; we shall never surrender.

Winston Churchill, Speech on Dunkirk, House of Commons, June 4, 1940

MUCH OF THE ANTIWAR movement, as well as the more recent antinuclear movement, rails at the military establishment with a righteous belligerence matched only by their foes. The goal seems to be to shut off war by throwing some large unspecified constitutional, or even revolutionary, switch. Yet if by magic all of our weapons were to disappear overnight, we would simply race to rebuild them *unless* this disappearance were accompanied by the psychotectonic shift I am here envisioning.

Peace activists have found a cause and purpose for their lives that galvanizes them to action and gives meaning to their efforts. They often fail, however, to identify with the presidents and generals and soldiers and scientists and factory workers and writers and artists and just plain common folk whose sense of worth would be threatened if wars were to be ended outright.

For a long time and for many nations, the occasion for war was the occasion for the highest idealism, the greatest sense of purpose, the deepest sense of self-esteem, as well as being economically, scientifically, artistically, and religiously stimulating to a degree unmatched by many other undertakings.

Detail of The Battle of Bunker's Hill **by John Trumble.**

We all know how rotten war is, or so we claim. But how many can acknowledge our attraction to it? I am not building a case for war here. I merely want to point out that – until recently – as long as casualties on at least one side were less than a few percent of the population, war has been a human activity that mixes rewards and risks in such a fashion that societies keep going back for more. For a long time and for many nations, the occasion for war was the occasion for the highest idealism, the greatest sense of purpose, the deepest sense of self-esteem, as well as being economically, scientifically, artistically, and religiously stimulating to a degree unmatched by many other undertakings.

It is simply impossible to do away with war without replacing it with something that fulfills these profound human needs. Humanity will not let go of fighting without a fight, unless the needs for self-esteem and meaning in life are met.

An exception in our recent history proves the rule. Over a decade of painful soul-searching and bloody demonstrations we were able to close down the Vietnam War, to bring about a shift not only in official policy, but at the psychotectonic level of our internal images. We managed to take away the usual wartime images associated with self-esteem, national fulfillment, meaningful sacrifice, and heroism. The result in the case of many Vietnam vets was self-loathing, drug addiction, and suicide. Our nation had trained these men for a war which later we came to regret. Those of us in the antiwar movement who successfully protested that war failed at the most rudimentary levels of compassion – we failed to be responsible for the victims of our success. We failed to offer them something better.

The antiwar movement has left us with a somewhat perverse koan: What do we have to *do* to have nothing happen?

On the psychotectonic level, we have been very successful at creating a wealth of images to reinforce our commitment to warring. Flag-raisings on Iwo Jima, World War II aerial dogfights, and liberated populations throwing flowers at victorious troops are by now so deeply embedded in our national psyche that it is hard not to be moved or excited, even when these images pop up in contemporary space-fiction epics like **Star Wars**. But what images come to mind when someone says they're for *peace*?

Peace is not a visualizable goal. We have no universally held pictures of peace. Peace is simply the absence of war. Take away the images of war and you have peace. If you happen to be comfortably well off, with a nice home, a good job, a nice family and a beautiful yard, you will probably image peace as some extension of your status quo. But what about the people who are not at war with anyone but are starving to death or working 20 hours a day to feed their families? Peace as a goal will not work. We know now that images and visualizations are the crucial units of human creativity. Anything that cannot be pictured cannot be created. Conversely, *whatever* we can picture, we can create. The most urgent task right

The antiwar movement has left us with a somewhat perverse koan: What do we have to *do* to have nothing happen?

We now realize that to deal with *want*, in any of its forms, is to bypass war; and conversely, *not to deal with want is to court war.*

now for those of us who would heal this planet is to begin to identify the activities and images which will replace war.

In this context we can see and even appreciate nuclear weapons as driving the search for an alternative to war. We are now more threatened by our own defense mechanisms than we are by any external enemies, no matter what their politics. The bomb has become the single most potent spiritual stimulus in the world today. The message is clear: Replace our old you-*or*-me paradigm with you-*and*-me, or perish.

In a moment of divine inspiration, reading the Koran, Anwar Sadat realized that the Jews have always been around and aren't going to go away. He saw profoundly that what was needed was a shift from Arabs-*or*-Jews to Arabs-*and*-Jews. He got on a plane and flew to Jerusalem and embraced his enemy, a man he personally did not like. This act not only set in motion the political and diplomatic events which are still unfolding; it also contributed a new and important image to our collective picture of what's possible. Sadat saw that the completion of his part of the planet, the healing of the Mideast, making it whole and beautiful, demanded embracing the differences between Arabs and Jews. Completion demanded that he acknowledge that there was no clear point where Egypt leaves off and Israel begins. Egyptian and Israeli security and well-being are identical. An ecosystem is born.

There is today a great deal of knowledge and experience regarding the process of negotiation between antagonistic nations.[8] Little of this knowledge can be used to alleviate ongoing tensions and conflicts, however, because there is lacking between most of the parties to conflicts the sine qua non of successful negotiation: *mutual respect*, or to put it another way, the willingness to see one's own culture and the rival culture as complementary, as each bearing an aspect of a larger truth, a truth that embraces both. Sadat contributed just this willingness to see Israel and Egypt as complementary parts of a larger whole. His vision is a challenge to all world leaders and to all planetary citizens.

War has often been a way to settle differences. As if differences needed to be settled. If each unique person or culture were understood and *felt* to be part of a larger, interacting whole, then differences would become crucial and desirable. Hearts and brains and livers all have unique tissues and functions, but woe is the person who does not foster the well-being of all the parts.

What is the unique and special contribution of America to the world organism? And what is the Soviet Union's contribution? China's? Israel's? The Common Market's? Buddhism's? NASA's?

It seems so simple and obvious that in order to be whole and complete, the various parts need to be different and interdependent. This goes for people and planets alike. Steps to an ecology of being.

In this context war can be seen as an evolutionary step, a clumsy, infantile reaching out to relate and explore. The net result of Japan's attack on the United States and the ensuing five years of human atrocities has been 40 years of deepening interaction, economic and cultural stimulation, and human exchange. Fifty years ago, Japan and the U.S. might as well have existed on different planets. Yet the potential for this remarkable symbiosis existed before Pearl Harbor and before the atomic bomb.

Is there some way, short of war, for the people of the U.S. and the people of the U.S.S.R. to become mutually interdependent (or to acknowledge the *existing* interdependence)? What is the larger whole that our countries are part of? How can we leap over a nuclear war and go directly to the business of completing, of healing, our potential?

Bob Fuller: "What conditions has the new game, the game that replaces war, got to meet? It must offer a sense of high purpose and glory to nations and wide participation and occasional exhilaration to individuals. It must be as challenging, as exciting, as demanding, and as important as war. It must deal with the fundamental needs of human existence, with the issues of material, psychological, and spiritual sufficiency, issues which have made so many wars feel like *just wars* to those fighting them.

"The activities that outmode and replace war must address our experience of incompleteness, whether it be of body, mind, or soul. No one activity will embody all these aspects. A great many activities, public and private, are under way, dealing with precisely these underlying causes of war. We now realize that to deal with *want*, in any of its forms, is to bypass war; and conversely, *not to deal with want is to court war.*"

Perhaps we can now glimpse the outlines of another grand human game on the horizon,

8. See **Getting to Yes** by Roger Fisher and William Ury, reviewed in Summer 1982 **CQ**.

coaxing us away from the thrills of the battlefield. It is the discovery and completion of one's self, as experienced in one's own culture, and of one's self as manifested in one's supposed enemy or shadow. People who have lived abroad, who have learned a new language, who have fallen in love with another culture, who have been moved and fulfilled in the Peace Corps, in a job in a foreign country, who have spent months getting to know a small Indian village while filming a documentary, who have emigrated to a new land and married a new culture – these folks have glimpsed a possibility. They have tasted of the fruit of completion. They have directly experienced themselves as larger, wiser, more useful, and expanded. They have discovered, after the initial culture shock, that these new, strange, alien people actually have something going for them. A new dance is born, with new partners. The transformation of the Vietnam veteran from a souvenir hunter into a lover points the way to a new game.

PAYING FOR THE NEW GAME

In 1967, the World Health Organization (WHO) launched a ten-year project to once and for all eradicate smallpox from the Earth. It was an audacious undertaking which most medical authorities said could never be done. After all, it had been tried before in the '50s and had failed. But in 1977, in a small Indian village, WHO recorded the *last* naturally occurring case of smallpox. Why did it take so long? We had had the technology since the 1800s. Why did it fail the first time? What was lacking? It turns out that the missing ingredient was *a picture of success*, a belief that it could be done, the will and intention to do it. This was supplied by Dr. Donald Hendersen, the project director. What worked, and what WHO and participating countries paid for, was Dr. Hendersen's good idea.

The initial funding for the Mo Tzu Project is likewise the funding of an idea. A small but growing group of courageous givers has deeply understood the necessity of funding paradigm shifts. They fully comprehend that the road to "peace" must be paved with good intentions, and they are willing to pay for the paving. Most, in fact, are directly involved in the work itself.

But the world could absorb 300 dozen such Mo Tzu groups. Teams are needed right now in Argentina and England, East Timor, Iraq, Iran, Russia, China, the Sahel, the United States, Central America, Israel, South Africa, Vietnam/Cambodia, Poland, Ireland, etc. Teams should be multicultural in personnel and include appropriate language skills. Both funding and imagination will have to be found on a large scale.

Bob Fuller: "The defense departments of the world's sovereign nations are not providing additional security with the additional monies they are spending in the arms race. Imagine devoting 1 percent of the growing defense budgets of the world into fielding thousands of Mo Tzu teams. We would end up with our 'army' in Russia, China, etc., and with their 'armies' here. The training for such work would be harder and more demanding than boot camp, the camaraderie from having served together as rich and long lasting, the challenges as exciting and surely as important, and the 'casualties' virtually eliminated."

Our task, then, involves seeding the clouds of possibilities with new images of symbiosis, cooperation, and fulfillment, of individuals and cultures working together to complete ourselves and our planet. Completing ourselves is actually what we have always desired, what we have sought in vain through the crude instrument of war. We now have the wisdom and the techniques to create these nurturing and self-completing experiences directly. It is not the battling but the *surrendering* which opens the way for a new and deeper relationship, both personally and culturally. Let us skip the war and surrender to each other. We can at last reach our hands across the cultural gaps instead of hurling missiles. Let us heal ourselves while we have time. Let us make ourselves beautiful and whole. ■

The Most Radical Challenge to Capital

What one "has" only has meaning if Earth exists as a habitable planet. Capital means nothing at the heat of the sun. The American philanthropist needs to experience the sensation that actions may be now or never. The ultimate grant budget deadline remains unknown. Philanthropic actions now may influence the very survival or extinction of our species and other species innocent of human foible. Something darker than Murphy's law approaches. Philanthropy may be at a crucible hour.

November 4, 1984 is an incredible distance away. Inauguration Day morning even farther. To help increase the chances of that afternoon ever appearing, philanthropists need to consider increasing the scope and focus of their giving. In the presence of 50,000 inherently unstable mechanical Frankenstein ovens, the "prudent person rule" for the management of capital requires constant radical examination. "Launch on warning" outmodes all clocks.

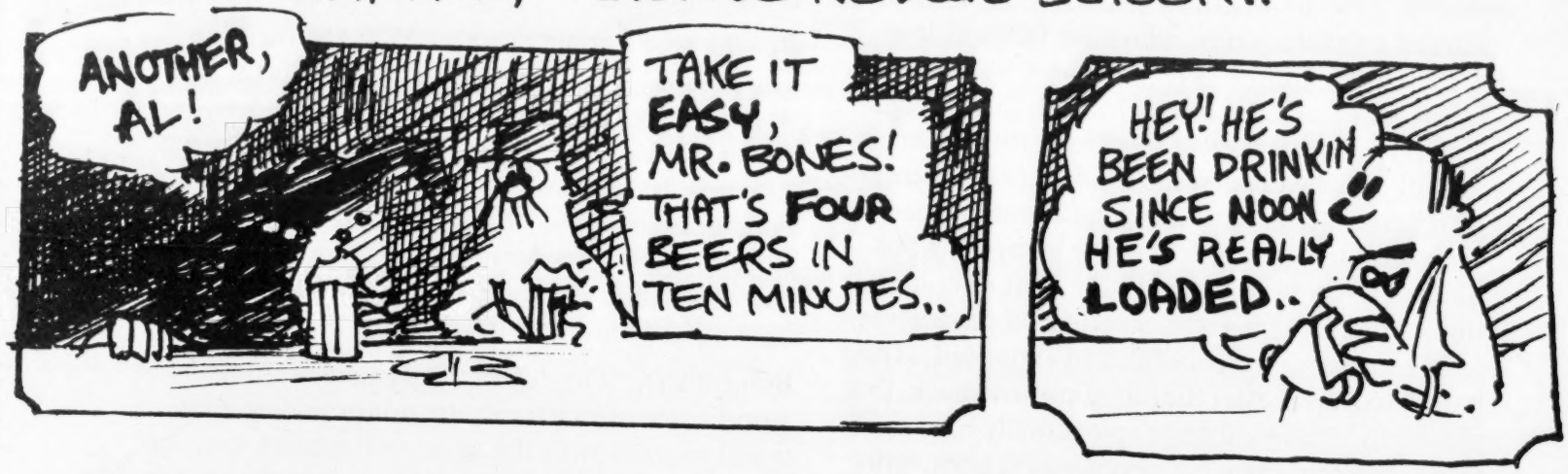
Even if American philanthropy were to deplete some of its capital (in addition to distributing normal income) over the coming two years, would this be too much? What is a new, adequate measure? Who can say what is enough? How much time do we have? What is a dollar value for giving the planet the chance for a future?

Skip Robinson (via John Steiner)

A FRIEND TO THE CHILDREN

—ONEILL—

DEATH..being everywhere.. I'm never surprised when I see him in my favorite Nevada saloon..



BONES **WAS SLOSHED**.. no doubt about it .. if Al says you are loaded .... you are **over the line**.. and Nevada is fairly loose .. so Bones was bombed...

BOX 428 SAUSALITO CA 94966

YOU CAN BE MY ASSISTANT, AND TAKE CARE OF ALL THE NORMAL PEACEFUL DEATHS .. THAT WILL LEAVE ME FREE TO DEAL WITH THIS SURPLUS OF ..
.. BURNING CHILDREN..
I'M THEIR ONLY FRIEND..

..Well.. we sang the night away.. I didn't take the job offer.. with this economic situation, I'll probably regret it..

Mr. Bones didn't mind too much.. how could he..? we were drinking boilermakers.. we probably disgraced ourselves... still.. if there was any Hope hiding in those bottles, we found it..

I remember the time Christ turned the water into wine because **He** needed a drink so maybe we weren't **that** far over the line.. considerin'..

©DIGILLS

Starting and Running a Nonprofit Organization

Starting and Running a Nonprofit Organization *is really a straightforward, no-nonsense approach to nonprofit incorporation. The writing is a little dry, but the book more than makes up for it by being extremely well organized, and by the clarity of the information presented. What I've found to be especially useful is the variety of blank forms that you can photocopy, use, and then reuse at a later date. These include model bylaws, program planning forms, budget worksheets, and community-relations planning sheets. My wife and I are in the midst of setting up a sort of mom-and-pop educational corporation (I envision it as being organizationally equivalent to Dobie Gillis' parents' grocery), and so far, with the help of this book, all is going smoothly.* —*David T. Eastman*

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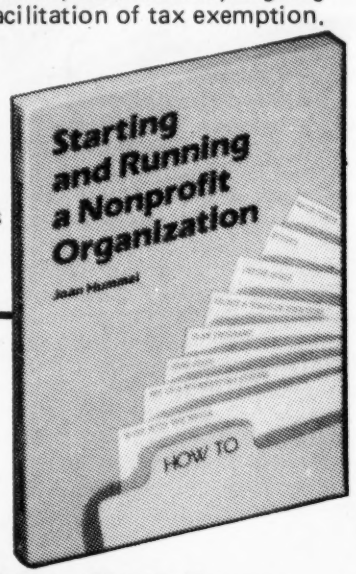
It is not necessary for an organization to incorporate in order to function on a nonprofit basis. However, incorporation is highly advisable since incorporation as a nonprofit is the general rule for social service agencies and most arts and community interest groups and many people do not understand and will not deal with unincorporated organizations. The other major advantages of incorporating include limited liability of members, ongoing "corporate" existence, and facilitation of tax exemption.

Starting and Running a Nonprofit Organization
Joan Hummel
1980; 160 pp.
$10.95 postpaid from:
University of Minnesota Press
2037 University Avenue S.E.
Minneapolis, MN 55414

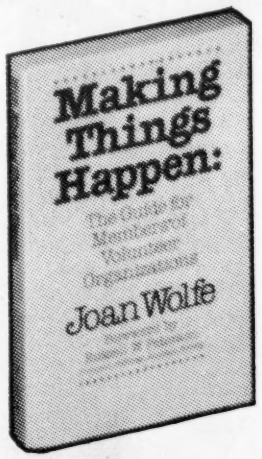


Making Things Happen

Matters of esoteric fact don't bear repeating — it's a use 'em or lose 'em proposition. But gaining wisdom and doing good deeds require time and practice. Maybe that's because adults seem to feel obligated to be complex and contrary.

A lot of what's in **Making Things Happen** *is in the fine and simple values category of learning. It should be obvious, but we all need some reminding to: appreciate everyone's special potential, desist from coercion, share information, be courteous always, make newcomers welcome, and forego personal criticism in favor of a larger goal. In or out of an organization, it amounts to a "back-to-good-nature" movement.*

In addition to widely applicable advice for getting along in groups, Wolfe, who has served in many organizations and is currently the first woman on the Michigan Natural Resources Commission, supplies a handy etiquette for meetings ("Wolfe's Rules of Order"); general guidance on fund-raising, publicity, and leadership; and just enough specifics to redeem it from the realm of do-good philosophizing. Very fine work.
—*Stephanie Mills*



Making Things Happen
Joan Wolfe
1981; 146 pp.
$9.40 postpaid from:
Brick House Publishing Company
34 Essex Street
Andover, MA 01810
or Whole Earth
Household Store

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Wolfe's Rules of Order
General
Responsibilities of the members
1. Always be courteous. Abusive behavior is out of order.
2. Speak after you have been recognized by the chair. (The chair may waive this rule in a very small group.)
3. Unless the group is sitting so that everyone can clearly see the faces of everyone else, stand when you speak.
4. Interrupt only for business that needs to be taken care of before the business presently on the floor. You may do this without first seeking recognition from the chair.

Responsibilities of the chair
1. Keep order.
2. Protect the rights of all members.
3. Give everyone a chance to speak before calling on anyone a second time, except — at your discretion — the person who made the motion. The chair may add to the discussion after giving others a chance to speak, but do not argue strongly from position as a chairperson unless the group is so small that the chair also participates as a member.
4. After one person speaks on one side of an issue, recognize someone else who will speak on the other side, if you know who stands on which side.
5. Allow only one issue on the floor at a time.
6. You may set limits to a debate so long as everyone has the chance to speak at least twice.
7. You must entertain all motions (accept them for seconding and allow members to vote on them).

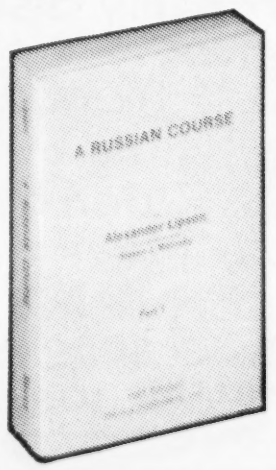
A Russian Course

A large part of Earth (roughly a fifth of its land mass) is a political entity known as the Union of Soviet Socialist Republics. Although over 110 languages are spoken there, the predominate one is Russian. If the lines of communication are to be opened and the "unthinkable" stopped, a barrier which must first be broken is that of language. Currently in the USA, far less than one percent of the population have a knowledge of the Russian language. If you would like to begin to understand the USSR from the inside out, I suggest starting with Part 1 of Alexander Lipson's three-part **A Russian Course**. *Self paced and often hysterically funny, this book, if completed, will allow the student to discuss important matters of state with any 11-year-old Russian. Tapes are available, too, and are needed for the course.*

Can a language be political? Only if it isn't spoken by the individual. —*Casey Monahan*

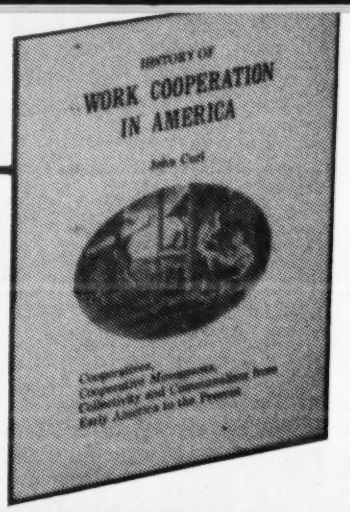
A Russian Course
(Part 1)
Alexander Lipson
1981; 347 pp.
$12.65 postpaid from:
Slavica Publishers
P.O. Box 14388
Columbus, OH 43214

A Russian Course
tape cassette
(Part 1)
$32 postpaid from:
Geddes Language Center
Room 540, CLA
725 Commonwealth Ave.
Boston University
Boston, MA 02215
Attn: Jim St. Clair



History of Work Cooperation in America

Communes and workplace collectives weren't invented in the '60s but date back in American history to the earliest colonial days. For those of us whose familiarity with past cooperative efforts has been limited to a paragraph or two on Oneida, New Harmony, and a few other nineteenth-century "utopian" experiments in our high school history books, this well-written and exhaustively researched book is a revelation. Author John Curl, a former resident of Drop City and participant throughout the '70s in Bay Area worker collectives, follows the thread of cooperation from Native American traditions right up to the present. Attractively printed with numerous illustrations and photos, this self-published book is itself a testimonial to the tradition it chronicles. —*Jay Kinney*



History of Work Cooperation in America
John Curl
1980; 62 pp.
$4.25 postpaid from:
Homeward Press
P.O. Box 2307
Berkeley, CA 94702

Drop City

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My first paying jobs were during summers, and then after school; the need of money drove me to seek out employers time and again, in a wide variety of jobs, both blue collar and white. I had some better jobs and some worse, some "good" bosses and some bad. I got a broad look at the boss-system and didn't like it: I decided at an early age that I wasn't going to be a wage-earner all my life, no matter what. But I also didn't want to become a boss.

None of my friends like being bossed either, and the help and support we gave each other in shared oppressive situations were some of my first experiences in survival cooperation. In organizing games among ourselves, we naturally used the system of direct collective democracy, at least when we weren't letting outselves be bullied. As a young adult I was part of a loose circle who helped each other survive in numerous ways. But it was not until I moved to Drop City and began working communally, collectively, and cooperatively, that I learned that hard physical work could be joyous and liberating as well as a drudge and a bondage.

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Farmers Alliance song (c. 1890)

I was once a tool of oppression,
  And as green as a sucker could be
And monopolies banded together
  To beat a poor hayseed like me.

But now I've roused up a little
  And their greed and corruption I see,
And the ticket we vote next November
  Will be made up of hayseeds like me.

—*Arthur L. Kellogg*

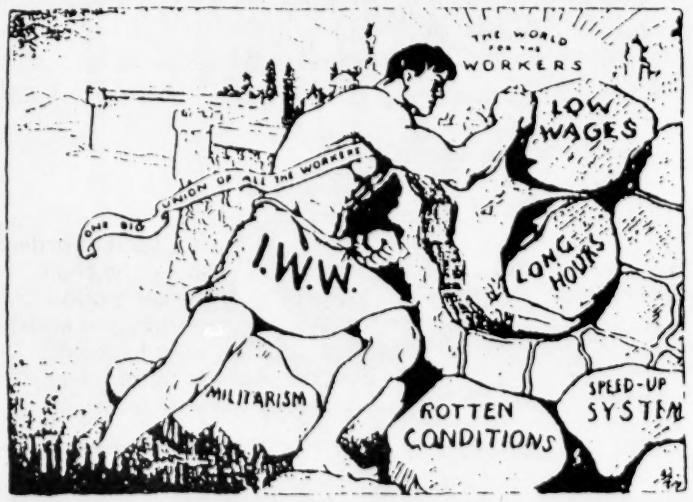
•

Shaker songs (c. 1795)

We love to dance, we love to sing,
We love to taste the living spring,
We love to feel our union flow,
Which round, and round, and round we go.

—**Millenial Praises**

Whoever wants to be the highest
  Must first come down to be the lowest;
And then ascend to be the highest
  By keeping down to the lowest.



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IWW songs (c. 1905)

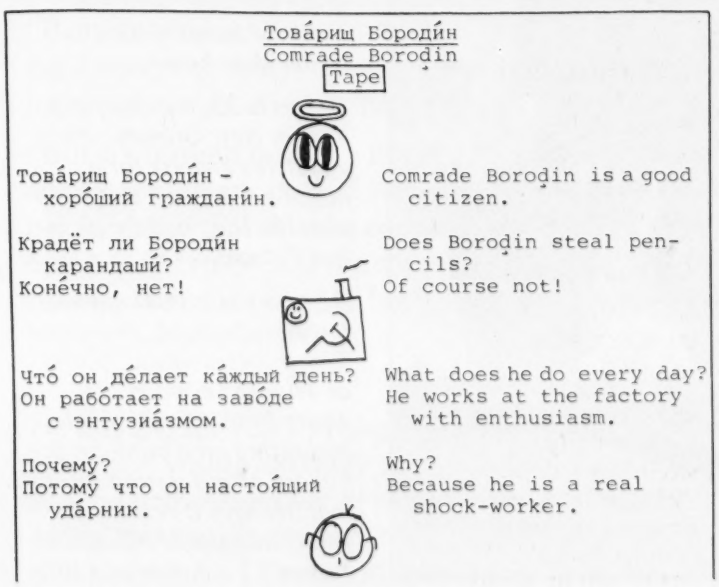
In the gloom of mighty cities,
Mid the roar of whirling wheels,
We are toiling on like chattel slaves of old,
And our masters hope to keep us
Ever thus beneath their heels,
And to coin our very life blood into gold.

But we have a glowing dream
Of how fair the world will seem
When each man can live his life secure and free;
When the earth is owned by labor
And there's joy and peace for all
In the Commonwealth of Toil that is to be.

—*Ralph Chaplin*

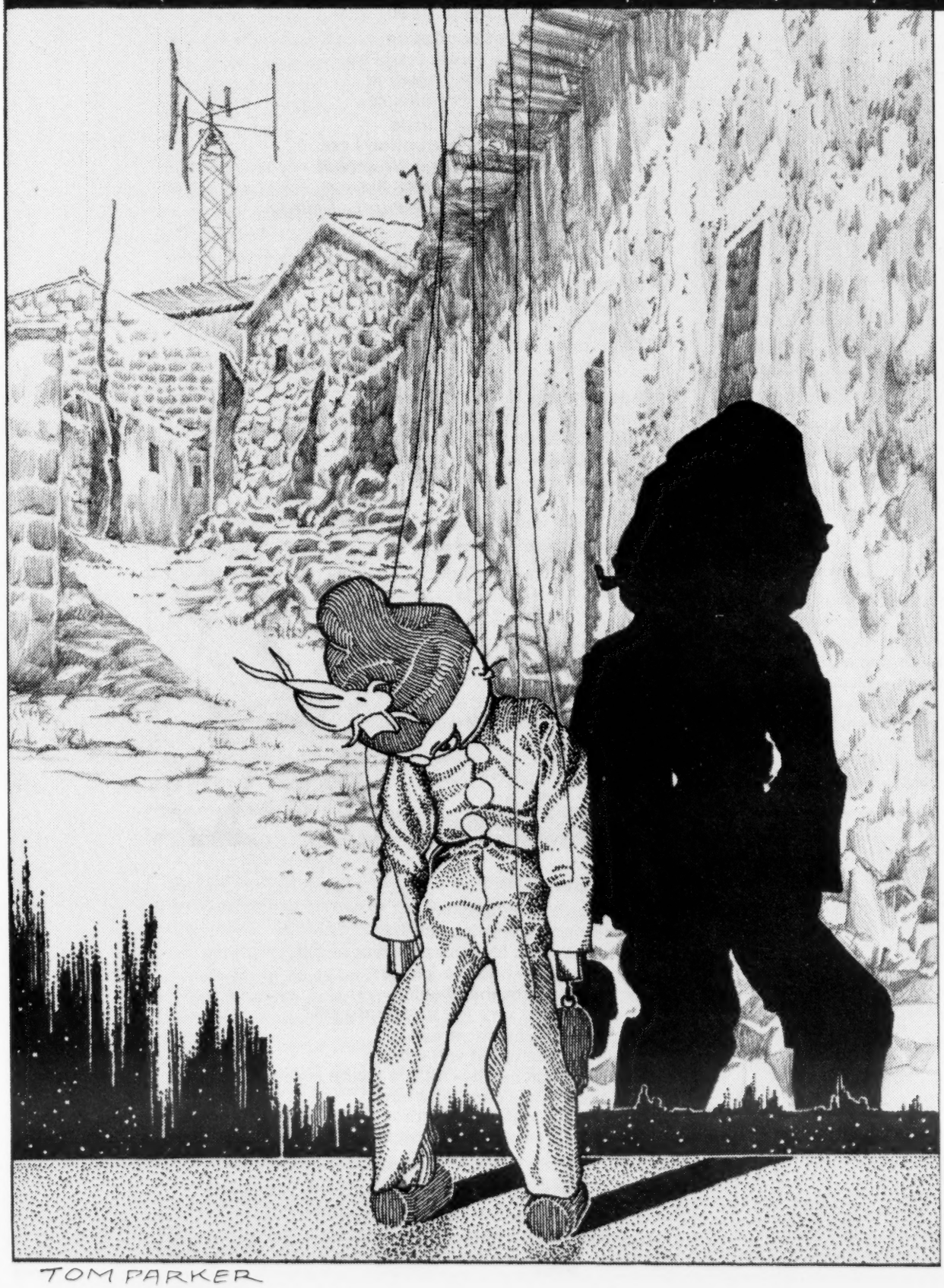
Then up with the masses and down with the classes,
  Death to the traitor who money can buy.

Cooperation's the hope of the nation,
Strike for it now or your liberties die.



MANUEL'S TEARS

by John Barnes
Illustrated by Tom Parker



While he was in engineering school, John Barnes "had a kind of love thing for technology," especially the space program. "Manuel's Tears" emerged from an attempt, as a teaching assistant, to explain balance of payments. Thinking about space colonization, Barnes realized that "There's no accounting system under which we could pay for it because there's no social system which is adapted to just receiving."

"Manuel's Tears" was rejected by a lot of science fiction magazines, but it found a venue here by appealing to my long-standing hostility to space colonies. Publisher (and space fan) Stewart Brand liked it for presenting a plausible glitch in the big cosmic view of space colonies, wherein Earth becomes victim rather than home.

Barnes is 25, married, and lives in New Orleans. He is a systems analyst for a holding company and has a novel in the "middle incipient" stages.

Also on the affection-for-technology front, illustrator Tom Parker, whose "Rules of Thumb" appears elsewhere in this issue, is collaborating on a book on the history of mousetrap inventing. He says it reveals the whole history of industrialization. —Stephanie Mills

ATURALLY AFTER IT WAS ALL OVER HE WAS A LEGEND, and ballads phrased a lot like the **Books of Maccabees** or **Robin Hood** turned up. In the usual way, fiction improved fact. I don't know everything, but I did know Manuel, and this is how I imagine it started:

He came in, closed the door softly, and sat down with a thump. Tears welled up in his eyes, and he began to weep quietly.

"Manuel, what's wrong?" Mary asked, coming out of the kitchen. Her husband had always cried easily, but even for him it was unusual to start the day off in tears.

He heaved a sigh and wiped his eyes. "The hydraulic ram jammed – the lower valve is completely gunked."

Mary set a plate of eggs down in front of him. "How much water is stored in the tank?"

"Enough for eight or nine hours of power, if we cut nonessentials right away. The separator, TV, heat pump, and lights will have to stay off till it's fixed. That's not the problem."

"Well, it'll be awful hot in here without the heat pump," she pointed out. Ohio in August 2107 was in the middle of the worst heat wave since the Dust Bowl years of the sixties; the little rammed-earth-and-corrugated-steel house would be like an oven before the hydraulic ram was fixed. "What else is wrong?"

Manuel stretched, feeling a little better, as he always did after crying. "That sister-raping snot-drinker. The valve is a wreck. It would take me four days to home-smith another one, even if I could get Saul out here right away."

"How much would a new one cost?"

"More than you make in a month." He shook his head. "We don't want to borrow any more, either – we're getting close to our credit limit and we should save that for an emergency. No, it looks like we'll have to get it in barter."

"What've we got to trade?" she asked, joining him at the table.

"Baby carrots are popular at the General Office right now," he said. "And demand has been holding steady – six bushels should get us a new valve."

"But six bushels *now* . . . that's a third of the crop, come fall." Mary pushed her brown hair back up her forehead and sliced a couple of pieces of hard bread for herself. They were silent, thinking, turning over the possibilities. She took a bite of her goat-cheese sandwich and set it down beside her scrambled eggs as she looked at her husband.

He was 21, six years younger than she, still handsome and young-looking. She was always startled that he had chosen *her* – women aged fast on the farms and usually men married younger women. She had been 15 years younger than James, and when the inevitable cancer had claimed him, she had thought that with her already-blotchy skin and crows' feet . . . she came back from her reverie. "What will we trade in late winter?"

"The beets look good, and the three-year-old wine in the cellar is pretty promising; we'll make it." For all his easy weeping, Manuel was a natural optimist. "Just a minute – finish your breakfast while I shut down the surplus power drains. You don't want to miss the bus today." He went out and did the shutdown, the distant thrum of the Francis turbine – or "Frankie" as he called the aging contraption – dying down as he cut it to half.

He came back in, looked her over (not that it mattered; she would change into her uniform once she got to the General Office), and insisted on walking her out to the bus stop as he always did. As the roaring hoverbus approached, he kissed her firmly and said, "Don't worry. We'll be fine."

As the bus pulled away, he waved to her, sort of a high-spirited salute.

T WAS NINE-THIRTY and already warm when Manuel finished the essential chores. In another half hour he had the carrots pulled; the lack of rain had made them very small babies, and it was really more like half the crop. As soon as he had the ram repaired he would have to put in a drip irrigator for the rest. Carefully he trundled the six bushel canisters up to the truck shed.

Fortunately, the wind, though dry, had been steady, and the compressor and electrolysis rig had filled all the tanks on line. He remembered it had been a while since he had checked the bearings on the windmill platform – the homemade bearings needed a lot of lubrication. He took the bucket of bacon fat up the derrick and carefully smeared the iron parts, listening with satisfaction as the faint squeaks died out.

He took a breather, sitting up on the platform,

enjoying the breeze and looking out across the northern Ohio countryside. Off to the north lay the Black Swamp, wild country where no one had gone since the drainage ditches had eutrophied 50 years or more ago. It wasn't interesting – just a swatch of green with smears of yellow due to the drought. Probably he didn't really look at it, but in light of what happened later, I've always liked to imagine that he did.

More likely, he was looking for news. Down the river he could see a johnboat tied up at Jesse Snyder's landing; if he thought about it, he might remember it was a steelmaking contract. There were no flags on Jesse's water tower or derrick. The Baker place was flying one-four-six, the quarantine signal for measles. Levi Baker didn't let his people work for the skyboys, so his medical care was cash only. One other derrick, the Perry farm in the upland, was flying the "will-trade/ surplus-on-hand" flag, which might be worth looking into some time; unfortunately, an upland farm, with no river frontage, was not going to have hydraulic ram parts, let alone spares. Well, time to get back to work – today was already shot to hell and if he didn't hurry it would take tomorrow with it. He climbed back down the derrick and closed the door in the truck shed roof with a bang, stopping to massage a little of the fat onto his exposed skin; so far, there were no tumors.

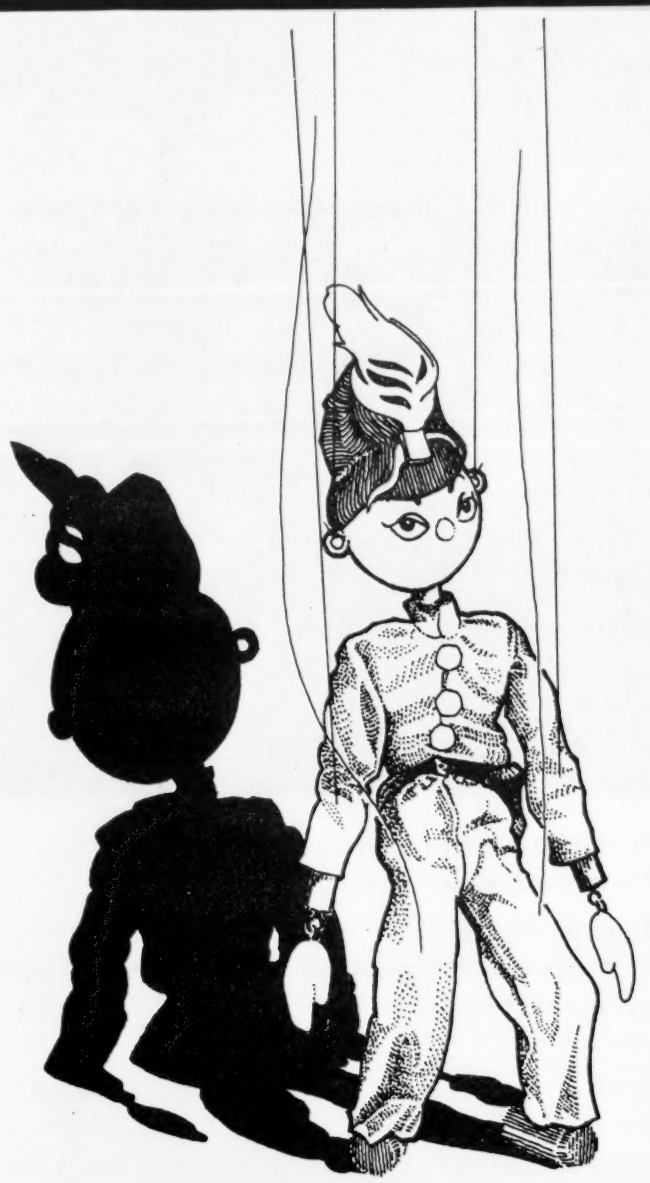
He strapped a full hydrogen tank into the surrey truck, removing the partly used tank and putting it on line. The six bushels of baby carrots took up almost all the cargo space; he closed their lids and strapped them down. Whistling, he set off for the General Office in town.

He'd gone maybe a quarter mile, not more than a minute and a half's drive, when the alarm sounded back home. He slapped the dash hard with his free hand and turned the tiller savagely, headed home at all 12 miles per hour the little truck could muster.

"God's bleeding bung," he said, looking at the meter by the side of the house. The generator wasn't turning, which meant "Frankie" was probably jammed. Battery power, with all but the most vital things turned off, would last perhaps an hour; after that the foodstocks in the freezers were in danger. He headed down to the water tower at a dead run.

The discharge of a Francis turbine is perpendicular to the inflow; anything that gums it up does so at the bend. Manuel shut the stopcock and unshipped the back of the turbine housing. Sure enough, there was oily black jelly blocking the discharge.

With the spoon he kept in the turbine shack for just these occasions, he dug the glop out carefully; when the outlet was clean to his satisfaction he replaced the back of the turbine housing and tightened the nuts down again. He got the long-



handled sieve and went up the ladder to the water tower.

As he had expected, there were three big blobs to be fished out. Obviously the General Office was dumping jetfuel again, and with the river low to boot. Well, the blocked ram would keep any more of it out of his power system, and by the time he had it working again the mess would be safely downstream. Just the same, other people needed to know – he had thought the blob in the ram was a stray, but obviously it wasn't. He hoisted the "put up your screens" flag – blue with a black smear in the center – and fired an attention rocket. In a few minutes the same flag went up on the Snyder water tower, followed by another attention rocket. The message was on its way downstream; for upstream, it was already too late. He could see Levi Baker through his binoculars, working with his daughters to pull the ram apart.

The General Office didn't have to do things like that; it was just that skyboys naturally behaved that way, Manuel thought as he started up the truck and set off again. The lowest-rated skyboy was paid a salary that would buy Manuel's homestead outright five times over every month, and General Offices could get about anything they wanted from skyside, but operating a proper dump was a bother. It was easier just to wash the jetfuel downstream and not worry about what it did to the people downriver. Well, at least this was relatively inert stuff; every so often organic solvents came down the river, killing fish and forcing everyone onto well water and cisterns for a month.

As Manuel chugged past the Klein place, Sam, at 52 the county's oldest man, flagged him down. "Hey, Manuel, got space to ride me into town?"

"Jump in, the front seat's empty. Why you going into town?"

"Eahh, I've got a refund to claim on a printout circuit the skyboys sold me. It just plain will not match in the autotransmission on the windmill."

"I hope you don't have all those on your windmills."

"This is the only one from its lot."

There was a thump as they hit a pothole. The old U.S. highway had long since cracked and broken at the edges, but the unbroken pavement in the middle was still broad enough for a surrey truck to pass a tractor comfortably. Caution was called for even there, since taking a bump wrong might shatter one of the aging wooden axles, and today had already been expensive enough.

"You expecting anything blessed down your way?" Sam asked casually.

"Drumming up business, Sam?" Manuel teased, hoping to change the subject.

"Plenty of folks do part-time preaching. No, I just wondered. You've been married two years, Mary was a pretty healthy young widow, neither of you looks the worse for having the other around – just seems strange."

"The medic at the General Office says there isn't anything organically wrong," Manuel explained, as he always did. "Bad luck, I guess." He clammed up quickly and hoped Sam would take the hint.

Sam had started out garrulous and gotten more so in his many years, but he had manners. "You gonna play third base this Sunday?" he asked.

"I'll probably be stuck working Sabbath again, Sam. Not that I want to, but there was jetfuel in the river again and it gunked my ram pretty good. I lost a lot of time today, not to mention half the carrot crop that'll go for a new valve. Maybe you'd better get somebody else."

"Dark days for the Baptists, then," Sam said. "We're playing Saint Mike's, and Father Bob is pitching."

Manuel thought hard about that one. The Catholics and the Baptists were the two real powers in the local league, and the game would be well-attended; he was still young enough to like being a hero. Maybe if he worked a little at night these next few days . . . "Hmm, uh, suppose you hold the slot open for a day or so."

"Great. Frankly, the forces of the Lord need your glove – if we win this one, maybe I can collect on a slightly sinful wager with Father Bob and get the Catholics to help us raise the new chapel."

Perry was a sour old man of 35, but nobody deserved the consequences of a short-term loan from the General Office.

"They'd come anyway. We all pitch in on things like that."

"Sure," said Sam, stretching expansively as if to fill the little truck. "But this way we won it fair and square, instead of taking charity. Later on, when they need us for something, we'll have given charity and they won't. We can't have 'em beating us into Heaven."

"You don't want to be separated from Father Bob or Father Joe at death, Sam. You'd have nobody to drink with."

"A very practical consideration." The two of them rode on in silence for a while, before Sam ventured, "There's some bad news around, too. Don't know if it's gotten out to your place yet, but it looks like Charlie Perry might have to take out a short-term."

"He'd have to be crazy. Can't he borrow any more on his regular contract?"

Perry was a sour old man of 35, but nobody deserved the consequences of a short-term loan from the General Office. The Rebellion of 2077 in Asia had resulted in laws to provide everyone willing to work with the minimum property needed for survival and regulations to prevent arbitrary foreclosures and seizures, but under those laws an individual was only entitled to so much safe credit. The laws handed down by the Orbital Republics stipulated that once a short-term was taken out, all those rights had been waived. Then, General Offices could seize and sell everything for one missed payment, or indenture the farmer and his family for the rest of their lives to work off the debt. No one ever paid off a short-term, either. Not when it had to be paid with cash gotten by selling his goods to the General Office *at their price*. Not when "assisting a debtor" was a capital offense, so that his neighbors did not even dare to give him a meal.

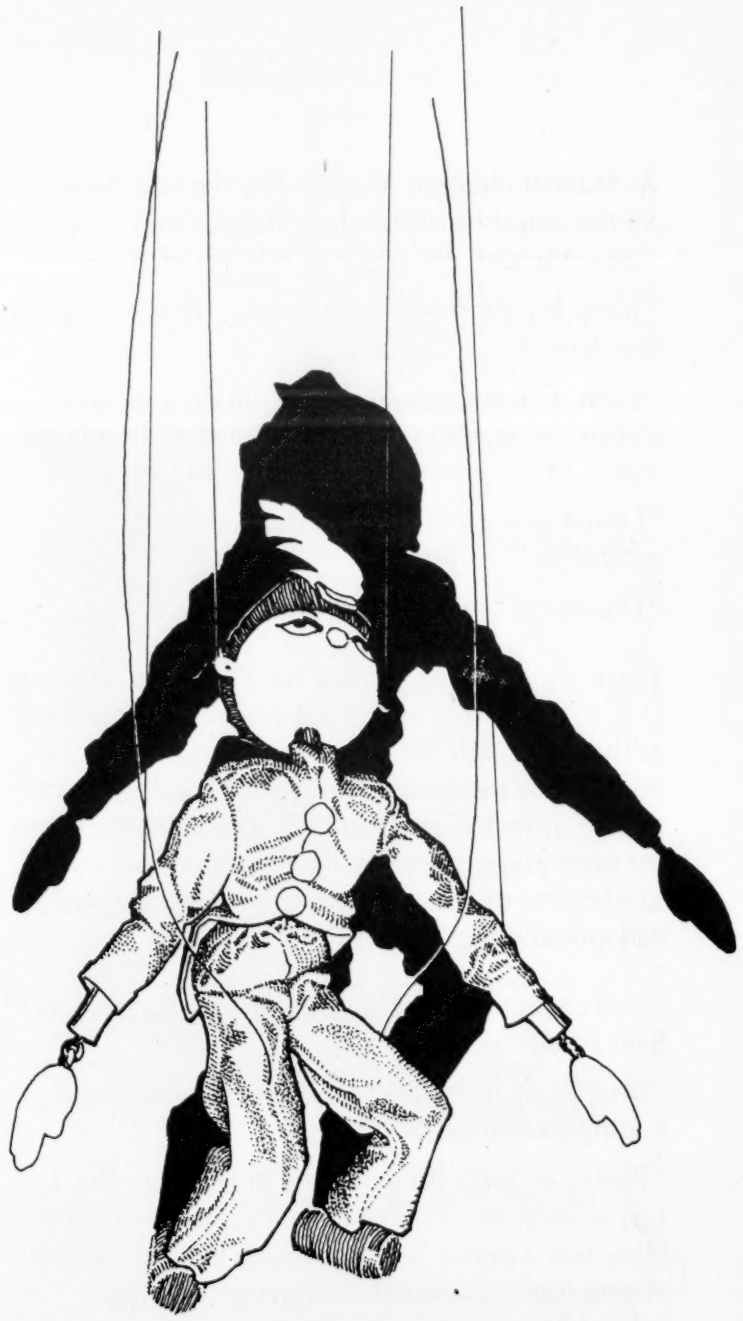
"He's borrowed up solid on his regular agreement. Part of his crop was wiped out by the backwash from an OrbiTransport coming in wrong, and the same accident wrecked the transmission and generator on one of his windmills."

"I saw the sale flag up. What's he doing – selling his spare parts?"

"That and anything else he can," Sam said grimly. "But you know what the skyboys are after. . . ."

"Yeah." Charlie Perry had a daughter who was

"Far as I'm concerned, if it's from Earth it's friend and if it's from space it's foe – I wish they'd lynched Von Braun and Gagarin and the rest before they did any damage."



blond and busty in the way the local Chief Steward liked. Furthermore, Charlie himself painted pretty well in his spare time but only rarely sold to the General Office (which paid a pittance for "Authentic Folk Art," then resold it in orbit for a 6000 percent markup). If Charlie could be indentured, it would be good for everyone at the local General Office, whatever it might be for Charlie. Manuel felt his eyes mist and a lump form in his throat; he had known Charlie for his entire life.

"Charlie's a Methodist, too," Sam added.

"Ow. They're too small to get him out of that mess by themselves. I guess we'll have to go in with the Catholics on that."

"I'd hoped so. It's bad news that you're strapped –"

"I can always give labor. Does he need a ditch dug or a new shed raised?"

"His farm, itself, is okay; what's really needed is machine parts to replace the windmill – still, the derrick was damaged too, and your help on that would be something."

Manuel thought for a moment. "Listen, I'll stop off at Jesse Snyder's tomorrow – Saul's johnboat is down there. Maybe I can crew for him on his next trip up to the lake, in exchange for parts for Charlie. Then Charlie can sharecrop my place, say for ten percent of yield plus Mary gets to eat at his table."

Sam nodded slowly. "You could do that. It would get Charlie out of his troubles. But I hate to think what's got to be in it for you – I had no idea you were in that much trouble."

Manuel carefully kept his voice low, calm, and reasonable. "I don't know what you mean. I just need a change of scene. And the farm won't be worse off for a year in sharecrop. Charlie's steady."

The old man checked among the scars on his arms, looking for fresh skin cancers, but found only the old surgical marks. He answered without looking up. "When my boy Pete was four, he used to call the kind of thing you're saying goat dudu. You're a farmer born and bred, Manuel Proxman, and in all my excessive years I never saw any farmer leave land he'd fertilized with his sweat unless he had to." He looked up and leaned closer. "If you're in trouble, we're all with you. Far as I'm concerned, if it's from Earth it's friend and if it's from space it's foe – I wish they'd lynched Von Braun and Gagarin and the rest before they did any damage. Now, what I hear you saying – between the lines – is you'd like to build up enough contacts to take off and become a Sea Gypsyman. Are times really that tough?"

"Damn it, Sam, it isn't the *times*, it's *all* the time." He swerved to miss a pothole. "The best farmer in the county doesn't make enough to keep his head more than an inch out of water. And every pig-raping time the crops come in good, the General Office drops prices through the floor. Sometimes I get so I'd rather be a crewman on a Sea Gypsy. They get tough times too, but that boat is *theirs*, and they never deal direct with a General Office. If Saul's a case to judge by, they're good people." Manuel exhaled slowly between tight lips. "It's everything. I get sick of looking at the posters, even."

" 'Work Hard and Get Ahead'? 'No Real Man Refuses Honest Competition'? Yeah. I get tired of reading the official messages before every Sunday service, too. But do you know how far from home you'd be getting? Some Sea Gypsies find their loot as far away as Duluth Ruin and sell their wares as far off as the jamborees at river

mouths in old New York State. There's no telling where you'd be iced in for the winter." There was a sharp slam as they hit a crack in the old pavement, but nothing seemed to be damaged. "You might be off on voyages for a year at a time," Sam continued. "Not to delve into your private affairs, but most Sea Gypsymen who leave wives behind have more kids than they're accountable for."

"Some ships have women, and even whole families."

"It's hard enough to run off yourself. Two folks running would stand no chance at all. Saul can't hide you both in the johnboat, and soon as you signed up to crew for him, the General Office would start keeping a short leash on Mary."

"You think I should stick it out?"

"I think you should talk to Saul – but what you hear may not be much help in the short run. Anyway, here comes town; high time we weren't talking about these things. How do you feel about the game Sunday?"

"If Jesus takes care of the weather, I'll take care of third base. You gonna need a ride back?"

"Don't wait for me."

"The day's blown already – it's no trouble. I'll wait with the truck if you're not there when I'm through."

THEY ROLLED INTO the little six-block town on the edge of the landing field and pulled into the parking lot that surrounded the mud-gray, squat General Office building. Sam nodded a thank-you and hopped out; Manuel set the brake and used the pay lock to attach the engine and the truck to the hitching post.

Over each door in the building was a three-by-two bronze sign: "Tax money paid for this building." The signs had been given by a group in the Orbital Republics called the Protectorate Friendship Foundation; the taxes had been levied on local farms in Manuel's father's time. It didn't seem likely that anyone had gone hungry in Port Armstrong or Von Braunburg to provide the signs.

The inside of the building was clean and cool, without a spot on the eggshell-white walls. There was a poster about every 15 feet along the corridor, usually the popular "Work Hard and Get Ahead," showing a joyous farmer bursting his chains and leaping up to space, where friendly skyboys reached out to help him aboard the Immigrant Center at Gagaringrad. "Oh, boy! The servant problem is solved!" somebody had scrawled on one. Manuel said a quick prayer that they didn't catch the guy. That little bit of graffiti was subversion, good for 30 days in the brig, plus crop confiscation. He went into the trade office.

There was a poster about every 15 feet along the corridor, usually the popular "Work Hard and Get Ahead" showing a joyous farmer bursting his chains and leaping up to space.

The skyboy behind the desk was fat, with sandy blond hair and clear blue eyes. With 35 fewer pounds he might have been handsome. Manuel carefully removed his hat and held it in his hands in front of him. You didn't, as a "free citizen," *have* to do that, but usually they liked it.

"State your problem, concern, complaint, or offer," the skyboy said, glancing up.

"I need an A-452-G6 flat plate pop valve. I have six bushels of baby carrots."

The fat clerk looked straight at him this time.

"There's a lot of things down here that just aren't fair – and every time I mention it to my father, he starts asking about subversion rates in my district."

"What happened to your old pop valve? They don't wear out, do they?"

"Clogged up this morning. There was something in the river." Manuel stood at more or less rigid attention, studying the clerk. His tunic fit slightly wrong, and there were faint sweat stains in the pale blue fabric. The boots sticking out from beneath the desk were scuffed, suggesting that this boy (and, looking closely, he was young even for his middy's insignia) didn't have the usual esprit. Maybe something could be worked here.

"I brought *six* bushels because I hoped to get some windmill parts, too," Manuel said, trying to make it sound like the valley's entire production.

"How much were you thinking for the, ah, A-452-G6?" The pudgy skyboy tried to put on an appearance of shrewdness. Oh, yes. A babe in the woods.

"Call it a half-bushel," Manuel offered, magnanimously.

"Doesn't sound good. We don't have many of them in stock. Maybe for . . . oh, two bushels –"

"One. And the other five for the windmill spare-parts box." It was easily worth ninety or a hundred.

"I don't want to cheat you, but that's silly. Let's stick at two, and any ten used spare parts you want for the other four."

Manuel spread his hands and looked mournful. "Eahh, you guys are too damned smart. Okay, it's a deal." For the first time today luck was breaking the other way. "The carrots are out in the truck."

The skyboy got the valve for him as Manuel helped himself to a few pens from the box on the desk. The used parts box turned out to have ten good bearings and precision gears, invaluable because they could not be homemade.

Six women were scrubbing the corridor floor when Manuel and the skyboy emerged from the office with the dolly. This was probably about the third scrubbing of the day; the floor already shone.

Manuel recognized Sam's wife and gave her a nod. In the dumpy gray uniform she looked old and ugly, though she was neither. Most women changed clothes in town – few husbands or fathers liked to see them in uniform. (There were no uniforms for men, because there were, simply, no jobs.)

They loaded the goods into the truck and lifted out the bushel canisters. As they did so, the sky-boy asked, "What's your name, Earthman?"

Usually they said *dirtsider*, and besides, it was a reasonable question. "Manuel Proxman."

"I'm Jefferson Smith," the skyboy volunteered. "Do you live near here?"

He pointed. "A few miles downstream on the river that runs behind the landing field."

"That's right. You said your hydraulic ram had clogged. Were they dumping jetfuel again?"

"I don't know. The stuff looked like jetfuel." Just what was going on here? Officially the landing-field authorities never dumped anything. There were occasional "regrettable accidents" which resulted in ten-percent-of-value compensation. There were "spills from undetected former dumps." But there were not, officially, any dumpings of anything into the river, and saying there were was subversion.

The skyboy put the last basket of carrots onto the dolly. "I don't have anything to do with the dumping," he said. "I filed a protest about it skyside. They told me to mind my own business." With a grunt, Manuel started to push the dolly up the ramp to the galley. The boy continued to talk. "There's a lot of things down here that just aren't fair – and every time I mention it to my father, he starts asking about subversion rates in my district. I don't think he understands anything about other cultures; he always says, 'If it isn't strictly geostationary, it's deviant.' A lot of the older people think that way. They don't *really* believe there's anything we can learn from each other, even if they *do* pay fortunes for private centrifuged gardens with simulated skies and authentic Earth paintings." They got to the galley without too much further conversation expended. Manuel handed over the carrots to the cosmorines on duty there.

As they emerged from the galley, a familiar voice hailed them. "Proxman! Hello, Proxman!"

COMMANDER VOORBECK," Manuel said, grinning with as much delight as he could manage – which was quite a lot, considering what he'd gotten for the six bushels. His favorite sign in that entire building full of signs had always been the one that said "All Deals Final Unless Merchandise Defective." Voorbeck was a tightfisted pig-rapist, but he stuck by that sign; it was a "point of honor," he had often explained to Manuel.

The commander was tall and handsome, with features tending to craggy and broad swatches of gray around his temples. His hair was combed with mechanical precision, his boots were like mirrors, and everything between was in perfect order. His posture was as naturally flawless as that snapped into by the terrified middy.

"So what brings you into town, fella?" Voorbeck asked him. "Isn't this one of a dirtsider's busy seasons?"

"Ahh, Commander, the Christ-blasted ram is fuller of gum than an old wife is of complaints." Manuel smiled stupidly as he slid into the old routine. I am a happy fella, he thought. I sing and dance and drink and thieve all day long. I live on my wife's earnings and keep garbage in my bed. I can't imagine a finer man than the commander, here.

"So you came in to trade, eh? And what did you skin Midshipman Smith for on this trip, Proxman?"

"All deals final, Commander," said Manuel, grinning until his face hurt.

"Quite right, Proxman. Here's two decicredits to get yourself a bottle. Try not to pour it all down your throat before you get home tonight. You want to be in shape to give your wife her nightly reward for keeping you."

Manuel smiled stupidly as he slid into the old routine. I am a happy fella, he thought. I sing and dance and drink and thieve all day long. I live on my wife's earnings and keep garbage in my bed.

"Commander, that kind of reward I give to anything with two legs and less hormones than me."

The commander laughed heartily and dismissed him with a wave of his hand; he was really very fond of this dirtsider fella Proxman, Manuel thought. As he walked away he heard the middy receiving the start of a dressing-down. "When they don't have us around, they practice on each other," as the proverb ran.

Sam was waiting by the truck. "How'd you do?"

"They've got a new middy," said Manuel, "Right now is a good time to do some trading. I got my valve and ten windmill parts for Charlie. Anything he doesn't want I can use for trade goods this winter."

"That's sharp trading. How'd you do in Free Trade?"

"Some pens. They're starting to chain down the more valuable stuff and I didn't bring any wire cutters."

"Serious oversight, son. As your spiritual advisor I remind you that the Lord favors the prepared. Well, any other business in town?"

"The commander gave me some conscience currency. I thought maybe I'd get spices and coffee for Mary at the general store. We haven't had anything except salt, pepper, and garden herbs these past two months, and we've been drinking dandelion root since April. You got the time to stick around, Sam?"

"Sure. My boys'll have most of the work done before I get home. Unless they decide to warm up for Sunday's game, in which case I'll either have to do the work because they're too tired, or beat 'em up, which isn't as easy as it used to be."

"You shouldn't complain *too* much. Your boy Thad's fastball is half the Baptist secret."

"And nine-tenths of his fastball is all the rest he gets."

"Well, it just goes to show, you can't serve the Lord and this world at the same time," Manuel teased.

"No, but you can adjust imbalances in time given," Sam replied, "which is what I tell Thaddeus when he starts quoting Scripture."

THE SKYBOY BEHIND THE COUNTER in the general store was skinny and underfed-looking in the way some 19- and 20-year-olds are no matter how much they get to eat. The sleeves of his uniform – long sleeves, though the cancer risk was minimal for a dirtside hitch spent indoors – were short on him, halfway up to his elbows, and, to judge by the strain on the buttons, trying for higher. "What can I do for you?" he asked, his voice cracking on "do."

"What'll two decicredits buy in chili powder, cloves, and cinnamon if it also covers a pound of coffee?"

"Well, let's see here . . . call it three ounces of each. Spices are cheap this month, especially cloves."

"Big surplus skyside?" Sam asked. "I thought that couldn't happen with the Planned Free Market."

"Part of the Plan is, we drop any mistakes on you," the young ensign said. "But this stuff is from Zanzibar." He filled up the clove vial. "They had a lot of trouble out there this year and confiscated most of the crop. Ordinarily they'd just burn it, but a bunch of tourists from skyside had come down with the idea of doing a tour in an old-style sailing ship, so they loaded up with cloves and tea for authenticity and hauled the whole cargo to New York Harbor – unloaded right on a couple of the old piers. The brass didn't want anything valuable getting into the Sea Gypsy trade, and the tourists wouldn't just pitch it in the harbor as they were asked to do, so the North America General Office bought up the cargo and shipped it out space-available to all the general stores. Now we have to get rid of it."

"Isn't that classified information?" Manuel asked.

"Yeah. It doesn't matter much now."

"I noticed your reading material's come out on the counter," Sam commented. "What's happened, Billy?"

Manuel looked down at the counter and was surprised to see a paperbound **Life of St. Francis.** Judging by the blurry edges, it had been printed on one of the Sea Gypsies; it was common enough, but not publicly in a skyboy's hands.

Billy sighed. " 'After due investigation' they've decided I've gone liberal on them – practically accused me of Prattism, and would have said I was Marxist if there was any evidence that any Marxists still existed. Actually the expression Voorbeck used was 'going native,' and 'getting dirt under my nails' was what the Chief Steward called it."

"How was the Chief Steward involved?" Sam asked. "He just runs the budget, doesn't he?"

"Chief Steward McLean is with Subversion

Control. There. Now I've *really* given away classified information. However, my old man happens to be high up in the Orbital Legislature – so I suppose they won't brig me for that, either. What they *are* doing is shipping me back skyside for a deprog."

Suddenly Manuel knew why this poor guy sounded so bitter and defeated. "Deprog?" he asked. "Like during the Great Rationalization?" He'd heard of it, but only in horror stories about electric shocks, brain surgery, and drugs – the tools that had wiped out the Moonies, Krishnas, and other Lost Faiths.

"Not that bad," said Billy. "But we sure aren't supposed to be Catholics up there. They'll just put me into a box, hooked to a vital-sign reader and a multiencephalocorder – the 'MEC machine' your mother threatened you with – until I'm hungry and tired. Then they'll circulate drugs in my bloodstream and yell at me through the headphones until the MEC says I'm sincere when I deny God. All that's classified, too, by the way. Anyway, the Sunday game will be my last."

Something finally connected. "Center field for St. Mike's," Manuel said. "I thought you were a new settler. You're damned good. Where did you learn?"

"Back skyside. I grew up in Port Armstrong, a handy 22,000 miles straight up from Quito Ruin, where they have the Sports Center, which is the biggest centrifuge in the Republics. We played baseball all the time – learned it from some Japanese technicians. You want that coffee sealed?"

"Please. In separate packs."

"Right." Billy hit a dial on the dispon and let it run for a moment, then dialed the combination and quantity and hit the run button. Seven neat, flat packages tumbled into the bin on the counter. "You did want that for a four-cup pot, didn't you? And by the way, you ought to return the screwdriver you just palmed from the rack."

Sheepishly, Manuel did so. "I'm not one of you," Billy said, "but I've learned a little." He carefully put Manuel's goods into a bag. "When I get up the first time Sunday, there's a line drive with your name on it headed straight down the third-base line."

"Just makes it easier for me to catch," Manuel said. "That's very nice of you."

They exchanged grins; then Billy looked over Manuel's head. "Hey, Mrs. Proxman. Need the usual?"

Manuel turned around and saw Mary. The expression on his face must have told the whole story when he looked back, because Billy suddenly found a whole set of candy jars that needed polishing and Sam looked away as politely and quickly as he could manage.

THERE WAS REALLY NO QUESTION. Mary was not wearing a gray scrubber's uniform or a pink house servant's uniform. The short tunic unbuttoned nearly to the waist and the heavily painted face told everything.

Manuel stood dead still for a moment; finally he looked back across the counter to where Billy was frantically looking for some dirt to wipe up. "You might as well give me her order, Billy. Mary, I guess we're going home – you'll have to go back across the street and tell them you're leaving early today. Be back in a few minutes." She turned and left. She had still not said a word.

Billy put a small box on the counter. "It'll go on her account."

Manuel nodded and picked it up. "I'll see you Sunday. You owe me a line drive." He tried to smile, but it didn't work, so he just went outside and sat down on the concrete stoop.

Sam came out behind him. "Come on, Manuel. They'll get you for loitering if you sit there, and you can't afford four days in the brig."

Manuel didn't reply. He was looking down at the little box of contraceptive pills. Well, that explained why no children, along with a lot of other things.

Sam hooked a hand into one of Manuel's armpits and hauled him to his feet. "Let's go to the truck and wait for her there," he said. They started off at a slow walk. "Manuel, sure as sin I thought you knew. It's the only job that carries a family benefits package as good as yours."

"Birth control pills," Manuel said. "She couldn't work if she got pregnant."

"She got full medical care for it, and job security. That wasn't the reason. Manuel, you're shocked and angry right now – don't do anything while you're upset. You –"

"Don't worry about what I'll do," Manuel said. He swallowed hard. "Look, I know all that. I love her. That's why I feel so goddam lousy." But saying even that much brought tears and closed his throat, and he had to bite his tongue to keep from crying. Then Sam put a hand on his shoulder, and he did cry.

An hour later, driving back with Mary beside him and Sam perched in the back, he pulled up at Sam's place. "Would you step out for a few words?" Sam asked, getting out. "Won't be but a minute or two."

When they had gotten a few feet up the path,

"Earth wasn't conquered. It was bought."

Manuel expecting to hear some sober, preacherly suggestions, Sam said, "Talk to Saul."

"What?"

"You were thinking of signing onto a Sea Gypsy. I don't know what you'll think of later, but before you do anything, I want you to talk with Saul. He can tell you some stuff you badly need to know. He's not with the Lord, but I suspect he may be His instrument."

Manuel shrugged. "Okay. I'll talk to him. Thanks, Sam."

The old preacher clasped his shoulder. "On the off chance I don't see you again, God be with you, Manuel Proxman."

OF COURSE, I KNEW about what happened in town from what Sam told me later. For the next part, I have only my own pure guess, but I did know Manuel and Mary well, so I've always imagined that as they bumped home down the crumbling old highway in the blistering heat, Manuel probably said, "Why didn't we have any children?"

Mary must have turned to him and said, very softly as she always did when she was upset, "I took the pills because I want our child to be your child. I'm sorry."

"The skyboys have an operation to keep them sterile. They don't waste their precious sperm on us. You didn't have to —"

"Voorbeck didn't have that operation. He says he values his manhood, even if the rest don't . . . and a few of his bastards would improve our breeding stock."

"Voorbeck," he said flatly. "You did right." He paused for a moment. "Did he give you the bruises?"

"I didn't know you'd seen those! I dress in the dark —"

"I saw, once, by accident. You've got a lot of scars."

"I was 16 when Voorbeck started on me. That was eleven years ago — time enough to get a lot of scars." She sat frozen with anger. "You *didn't know!*" she accused.

"No. I didn't. I'm sorry."

"He can't manage unless he's the master and I'm dirty, so once a day I put on a dog collar and fight him while he calls me names. Then I have to beg him —"

"Shut up," Manuel said firmly. "You're mad as hell at me, and you may have every right to be, but you really don't want me to know these things." She was quiet for a moment, seeming to sag as the fight ran out of her and she was left disconsolate.

"I have to go back tomorrow," she said dully. "How are we going to live with it? We can't make it without the benefits package, and there aren't any jobs for men."

"I don't know. I have a lot of thinking to do."

He probably spent the rest of the daylight getting the ram, tank, turbine, and generator taken care of, plus doing the other chores. It must have been dark by the time he was done; when he came into the house, Mary was roasting a piglet. "I know," she said, "that this is wasting food, and we can't afford to do it, but it *is* your favorite, and you got the cloves and some stuff came in in the herb garden —"

Manuel laughed gently. "It's all right, Mary. We both need something nice."

He went down to the cellar to get some of the good wine, and by then there was enough spare power to turn on the air conditioner. I like to imagine they spent a long time after dinner, sitting with arms around each other's waists, sipping wine and talking about nothing. Finally, Mary said, "There's something you're waiting to do; you'd better go and do it."

Without saying anything, Manuel was up and out. The door sighed quickly shut behind him.

I SLEPT LIGHTLY in those days; it came with both my occupations, overt and covert. When Manuel was still 200 feet from my boat, I came full awake. By the time he got out on Jesse Snyder's dock I was sitting in front of the little tent amidships, my rifle across my lap. "What can I do for you?" I asked.

"Can I come aboard?"

"What about?"

"Sam told me to come."

"Get aboard and come into the tent."

As was usual when they first came to me, he raged in whispers for the first half hour, venting his fury against the Orbital Republics, various skyboys, and the whole Protectorate system. I heard about prices dropped to keep anyone from getting ahead, about laws against pooling resources, the Subversion Act, Mary, skin cancer, continual contempt. "They teach the kids in school that anybody can just save up money, fly off to orbit, and end all his problems. All the time, they say we have to work hard and get ahead, and when we don't, never

mind their prices and their rules, it's 'lazy dirtsider' and 'the best stock shipped up years ago.' " He finally wound up his harangue the way they all did, regardless of what their bill of complaints was: "Why? They are *so rich.* They can make as much of whatever they want as they want. Why do they *do* these things?"

We were getting up to the hard part, faster than usual and more plainly. I asked, "What do you think makes them do it?"

Manuel bit his lip. "I think we were conquered, and the history they teach us is a lie. Probably the war destroyed the ozone layer. They must have erased the names of anyone who ever fought them – hell, I *know* from things passed down among kin that not all of what they say in school is true."

"But you yourself said there wasn't any reason for the Protectorate," I pointed out. "With all the resources of space, with unlimited energy and raw materials, why would they conquer the Earth?"

Manuel stared straight into my eyes in the dim light under the tent. The boat rocked slightly, once or twice. A few bugs buzzed and whirred outside. "I don't know," he said quietly. "Tell me, Saul."

I took a breath and held it. This was the hard part. As aggrieved as many of them were, few of them were willing to accept the truth at first; some because it was too much, others because it was too little. Manuel was a bright guy, but . . . never mind. If he could ask the question, he was ready.

"Earth wasn't conquered. It was bought." I gave that a moment to sink in. "There was no war; the ozone layer doesn't exist because OrbiTransport exhaust has destroyed it. The cities weren't bombed or evacuated; people just walked away from them because there were no jobs." I let it stand a moment, and went on, being as plain as possible; after all, he had grown up with a very different view of history. "When the space colonies declared independence in 2028, they were already economically more efficient than anything on Earth, and of course they were beyond any kind of effective attack. They started shipping their unlimited trade goods down, always for lower and lower prices. At first Earth could trade food back upward – some things were hard to grow hydroponically – but research fixed *that* . . . it pains me to say that some of the research was done here on Earth, but back in those days they had an idea that knowledge, any knowledge, was good. Anyway, everything could be made more cheaply up there, and it's always cheaper to ship *down* a gravity well than up one, so pretty soon there was no way of buying all this stuff. The last year in which there was a UN to keep unemployment figures showed an 88 percent rate, which may have been low."

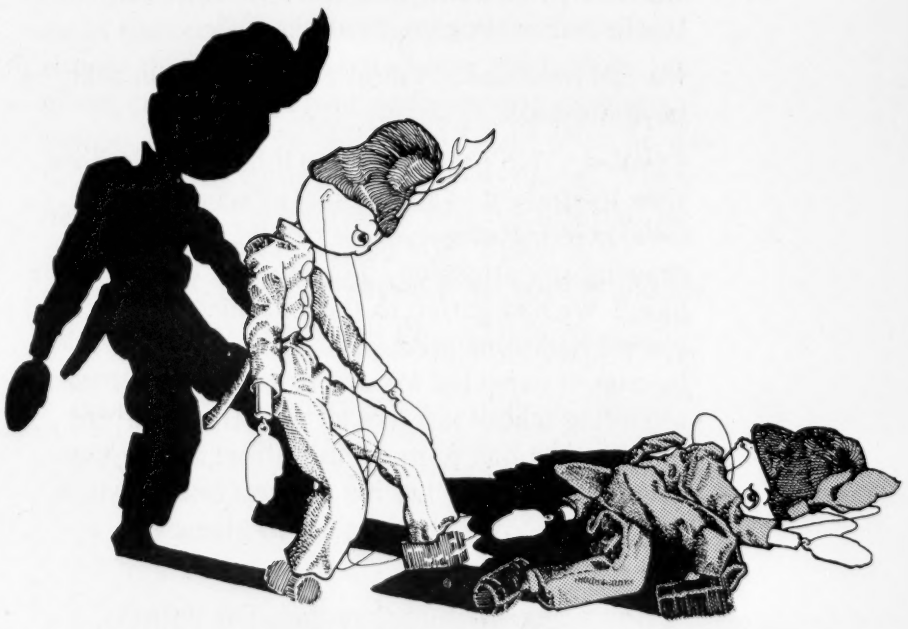
"You see, the people who settled space were picked by the power companies to be 'pioneer types.' Actually they were moving into a disease-free world of limitless abundance where the dangerous and dull jobs were all done by robots."

"Didn't they try to stop the trade? They must have realized they were losing their independence."

"Sure. But the Nonintercourse Acts were doomed from the start. Any nation that wanted to cheat on them could have a limitless supply of anything. Any official could be bribed any amount to tolerate smuggling. Furthermore, the skyboys' cosmorines were sent to protect the 'right of free trade' – which, incidentally, is how 'Free Trade' got to be an expression for theft."

"And the nations . . . "

"Collapsed in the face of economic catastrophe."



HE TURNED ALL THAT OVER in his mind for a while. I was half-expecting him to reject it out of hand, or to demand to know how I knew; but instead, he asked, "Why didn't they just give their goods away? They could feed and clothe us out of petty cash."

"They were terribly afraid that people who weren't threatened with starvation wouldn't work. They even feared that workers might move down from orbit to get on the dole here. You see, the people who settled space were picked by the

"Do you think the skyboys are to blame for this world?"

power companies to be 'pioneer types.' They had romantic ideas about the Final Frontier and striking off into the Dangerous Unknown. Actually they were moving into a disease-free world of limitless abundance where the dangerous and dull jobs were all done by robots – but the beliefs they had been chosen for told them they had to be tough and do things by force and will. They still pretend to, up there. Down here, having bought the world pretty much by accident, they created ferocious competition and scarcity and sent down the cosmorines to administer it.

"But adventurous force-and-will types, sent to boring colonial garrisons, have to keep proving they're superior. That means not 'going native,' not being sympathetic. More and more they come to believe that the colonial peoples can't govern themselves, and more and more brutal methods come into play. Once upon a time they thought they'd teach you to be competitive heroes – but that didn't work out, so now they prove they're superior by cheating you like a crooked carnival booth and beating your women."

Manuel hesitated; "I didn't understand all that," he confessed.

I smiled. "No problem. You'll have much more time to study it. I have a sort of school down here, meeting whenever we can do it without drawing any attention. I'll get word to you if you like." We had gotten to the key question. I could claim I had some premonition, but it wouldn't be true. I expected Manuel to go home and start attending school just like all the others, but my orders said I had to make this effort and test as soon as possible. "Let me ask you one question. Do you think the skyboys are to blame for this world?"

"I don't care whether they are. The point is, things can't get better until they go home," Manuel said. I was startled – no, truthfully, I was stunned. I had been looking for this for so long . . . "It doesn't matter what they're guilty of; all that matters is that they go," he said, more firmly this time. "So we've got to get them to leave; and they won't do that unless it's too dangerous and expensive to stay."

I clapped him on the shoulder. "You're the first one that's given the right answer, Manuel. The ones who say,'yes, they're to blame,' are maniacs who want to go out and kill until they're killed – we understand why they're so angry, but they're too wild to use. The ones who say no and let it go at that don't have the heart for a fight. You, the first one, saw it wasn't the right question. Now – are you ready to do what's necessary?"

"Yes."

"Will Mary be all right?"

"She'll want to come along. I won't make her stay home."

With that the conversation turned to lengthy particulars. I didn't push him – I like to think I was being careful of his feelings, but I was pretty cynical in those days, and more likely I was so astonished that he'd finally turned up after waiting for him so long that I just wasn't *up* to pushing him. After all, of all the farmers in the valley to turn out to be the one we'd been waiting for – peaceful, gentle Manuel, who cried when a kitten died? It was hard to believe then; it still is now, so many years later.

When we got done talking and planning it was nearly dawn. That day Mary must have done most of the farmwork, for Manuel left me with both of us exhausted, and whatever the songs say, his strength was not limitless. For my part, I begged off helping Jesse, and pulled out the hidden transmitter at the proper time. I'm told my bosses had a party when my news reached them – it was the first such from North America – but all they sent me was, "Acknowledged. Carry on."

IT WAS ALREADY DARK when Manuel got up and went to work the next night. He double-checked everything to make sure that the power systems would stay working until the neighbors got there next morning. He filled the watering troughs, watered the gardens, looked into the water tank for debris, cleaned the turbine – which didn't need it – inspected the valves on the ram, regreased the windmill. Mary went along with him, helping him when he asked her to. Already everything was in perfect order from her work that day, but he wanted to do this, and she understood. At last, he climbed the windmill derrick and nailed up the yellow flag with the black ball-and-spiral. It meant "Abandoned farm, help yourself."

He climbed down and turned on the main current to the electrolysis rig – between the water turbine and the windmill there would have been enough power to do this quickly. He reversed the poles on the e-rig and geared the compressor all the way down, then fitted a full hydrogen cylinder into place. The hydrogen coming out of the oxygen vent made the sparks around the compressor motor brushes flare and dance; Mary opened the door to the shed roof to help the hydrogen dissipate faster. The e-rig, running backwards, continued to bubble oxygen into the compressor intake; even in bottom gear the compressor groaned and squealed as it pressed oxygen into the

already full hydrogen cylinder. The two of them carefully rubbed the tank with ice from the freezer; there was a risk that heat of compression might set the mixture off, and the thermometer on the valve already showed 160°F. The needle on the pressure gauge crept up slowly to the agreed point in the red. They reset everything, tossed spare parts they would need into the truck, gingerly packed the overfull cylinder into the back with straw and rags, and set off for town. I have no idea whether they ever looked back.

There's a ballad, "Manuel of the Black Swamp," that has Manuel going berserk with rage over the rape of his wife and shooting Voorbeck down in a gunfight in the main street. It's all nonsense, of course. Earthmen couldn't carry weapons in town; rules about barrel length made it unlikely that anyone would try to conceal one. Besides, what had happened to Mary was something worse than rape, and Manuel didn't lose his temper then. The decision to kill Voorbeck was worked out in my johnboat as one of a set of possibilities, and the option was chosen in a decision as cold-blooded as a snake's choice to kill and eat a mouse.

It didn't happen in the street, either. Voorbeck was sound asleep in his bed at one a.m. when Manuel smashed the window with his shotgun butt, whipped the gun to his shoulder, and fired point blank into the sleepy and dazed face of the commander. Voorbeck was dead before Manuel lowered the gun, long before Manuel had sprinted across the landing field or the commander's aide had burst in to ask about the noise and found the bloody remains of his boss. Within a minute or two the alarm was sounding and drowsy cosmorines were stumbling from their beds to assemble in the mess hall.

The homemade timer may not have been very good, or Mary may have been a little nervous setting it (she had wanted to get Voorbeck, of course, but Manuel had far better odds of getting across the landing field before there were enough guards out to catch him). At any rate, the hydrogen cylinder blew a good four minutes ahead of time, bringing down the roof on only about a third of the cosmorines. Manuel was climbing aboard over the gunwale as the improvised bomb went off; we didn't know what the survivors were going to do, so we cut in the motor and beat it north. As it turned out, we had bagged all but three officers, and the tardy survivors spent the night putting the fire out and recovering bodies. We weren't pursued, or even noticed.

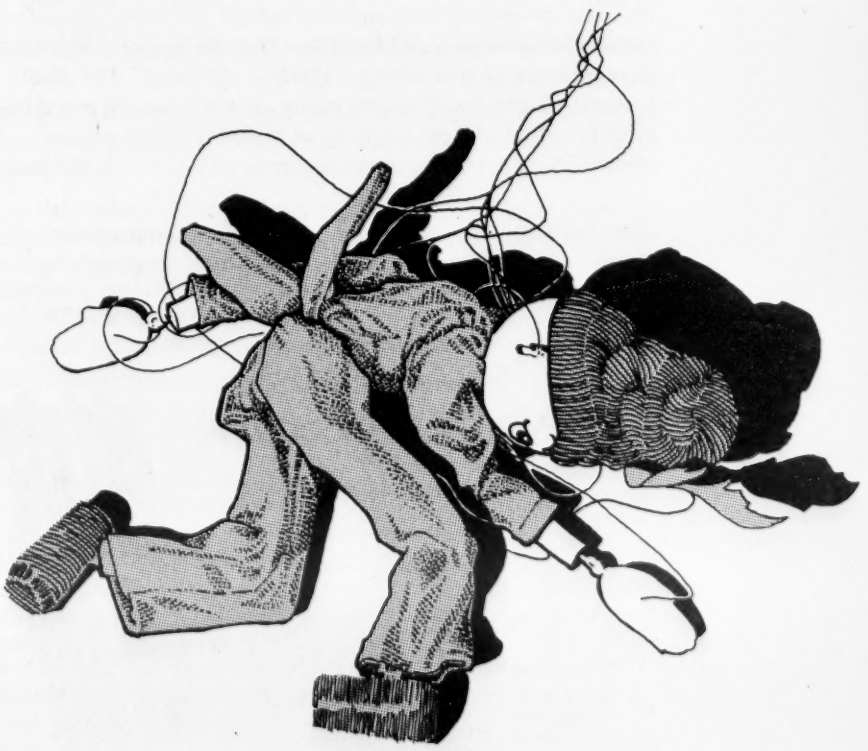
Next morning, in the depths of the Black Swamp, Manuel and I fixed breakfast while Mary sketched out some ideas for future raids. Her soon-to-be-famous talent for this kind of thing was already showing. "The key thing," she said, "is that after last night they can't act like they own the world."

"But now, for me, his tears mean the cruelty of a world where he had to choose the swamps he hated over the farm he loved, choose truth over peace, or give up being human."

Sitting there in mud-smeared tunic and caked boots, she looked a lot more military than Manuel or me, and she seemed to immediately grasp the poor tidbits I could supply from my training – if you can call a fast reading of IRA and Tupamaro literature that. I was about to comment on one of Mary's schemes when something stopped the conversation; Manuel began to cry.

Sometimes, a long time afterward, I thought that he was looking ahead to his life in the swamps, eating and sleeping little, losing friends to death and betrayal, hunted eventually to death without ever seeing any fruit from his labors. At the time I thought he was crying because the machines he had fought to make work and the crops he had tended would go to someone else, because he would never play third base, sit in church, or tend his wine cellar again. I may have been right both times, or either . . . but now, for me, his tears mean the cruelty of a world where he had to choose the swamps he hated over the farm he loved, choose truth over peace, or give up being human. He cried for a long time, and when he was finished he sat stone silent for even longer. Then his face set in the grim smile that became part of the legend, and he took up Mary's plan as if nothing had happened between her speech and his.

Perhaps nothing had. But I know this: Manuel never cried again. ■



Cheaper Photovoltaics Still Approacheth

by J. Baldwin

A number of CQ readers have rightly taken me to task for wrongly predicting that the price of photovoltaics would continue to drop at about the same rate as in previous years. Alas, the price has risen instead, mostly because increasing demand has forced a shortage of materials and fabrication facilities for conventional panels. Manufacturers have been accused of purposely inducing shortages in order to maximize profits. I doubt if that is the case this time. More to the point is that to enlarge the capacity for making conventional cells now is to court instant obsolescence at the hands of advanced technologies.

Two such advanced techniques appear to be prominent. One is from the ubiquitous Mitsubishi. They have managed to make an amorphous silicon cell (aSi) that is 8.5 to 10 percent efficient. Previous aSi cells have had such low efficiencies that they were not economically feasible despite very low production costs. You might think that 10 percent efficiency isn't much to brag about, but in the solar cell game it is terrific. It means that a typical energy-pig American house could be powered with a panel costing about $15,000 instead of the current (so to speak) $100,000. Of course an energy-efficient house would make the new cells cheaper than most available commercial electricity. Even at today's photovoltaic prices a house with modest demand could be economically reasonable, but few such houses or owners exist. RCA is also working on aSi, but so far they can't match the Japanese. It is interesting to note that the Japanese have had substantial government assistance for many years, while the U.S. government is reducing investment in photovoltaics.

Another firm promising a big price breakthrough is ECD, headed by the controversial Stanford R. Ovshinsky. They've managed to attract much millions from big oil companies. Though I decry Big Oil getting into photovoltaics, it must be admitted that the substantial development costs have to be paid for by somebody, and that the costs must come down before photovoltaic panels are affordable by large numbers of people. I can't believe that prices will be held artificially high in a business this competitive, especially with the Japanese involved. In any case, we should know this year how it is going to go. ■

J. says that just about the lowest prices around for photovoltaic cells can be had from Joel Davidson, Star Route 2, Pettigrew, AR 72752. Davidson sells an ARCO 35-watt cell for $375; that price covers shipping via UPS. He also publishes, at irregular intervals, the **PV Network Newsletter** *($2/issue), which includes much helpful information for small-time solar users and builders.* —Joe Kane

Jim Cullen's Solarvoltaic Catalog

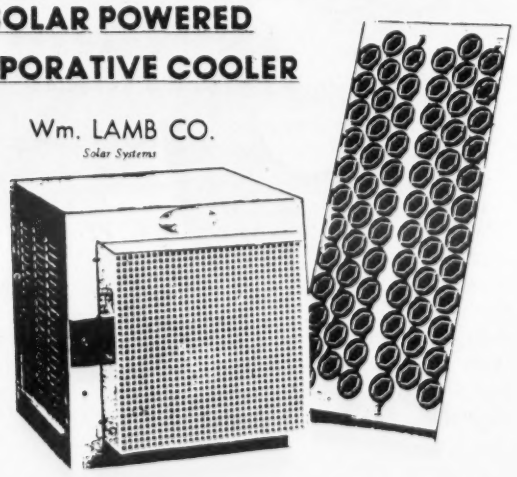
This is by far the biggest catalog of low-voltage DC equipment I've seen, and it's been a long time needed. While the big selection offered here is beyond quibble, the lack of subjective comment which would allow an intelligent choice is deplorable. That's usually a sign of inexperience in a budding industry. So be it. I'm glad to have all this stuff in one place where I can do my best with it. Any of you working with low-voltage power systems will probably feel the same. —J. Baldwin

Jim Cullen's Solarvoltaic Catalog

$3.50 postpaid from:
Jim Cullen Enterprises
P.O. Box 732
Laytonville, CA 95454

SOLAR POWERED EVAPORATIVE COOLER

Wm. LAMB CO.
Solar Systems



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Why evaporative cooling creates comfort

1. Lowers actual temperature. Properly installed, the cooler provides a continuous flow of cool air that lowers actual room air temperature.
2. Lowers effective temperature. Motion of the cool air increases skin surface evaporation. This results in body heat loss and lowers effective temperature (Temperature people actually feel) an additional three to five degrees.
3. Reduces radiated heat. The constant flow of cool air absorbs heat from all exposed surfaces and results in a reduction of the heat radiated to the human body.
4. Provides 100 percent fresh, revitalizing air.
5. Filters air. Removes dust, pollen and foreign matter.

Advantages of evaporative cooling . . . when solar operated

1. Simple low cost installation. With tax credit available.
2. Low, low cost of operation and maintenance.

Maximum comfort when it is needed. The hotter the day, and the more the sun shines the greater the cooling.

3. One hundred percent fresh, cooled, filtered air. Air is never recirculated.
4. Fresh air ventilation, without cooling, at any time . . . just turn off the pump.

Solar Powered Evaporative Cooler. Model 800-001 — Residential window unit 25" x 28" x 24" complete with two ARCO ASI-162000 solar panels. Cools to 1200 sq. ft. (Equivalent to ¼ ton, 3000 BTU air conditioner). $1,266.35

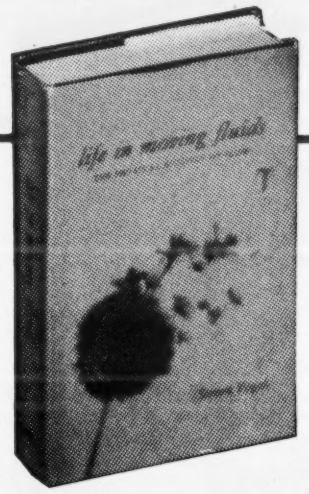
Life in Moving Fluids

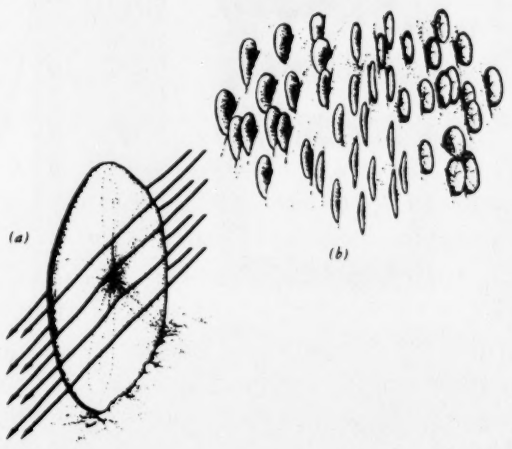
If you design things with fluids flowing through them or around them you will be very pleased to have this book. Vogel writes about the effects of moving air and water. Reading this book makes a great range of things more interesting — from plumbing to looking out over the wing of an airplane. Vogel is consumed by his subject. He is clearly discussing his life's work. The book has a flavor to it. He wrote the book to be used as a text and I am sure it will be a good one. It can also be read by anyone with an acquaintance with calculus and some physics.

Vogel explains how his approach (the biologist's) differs from the engineer's: "The engineer designs things or devises rules by which efficient devices may be designed. By contrast, we start with the assumption that our organism is well-designed (with constraints, and with natural selection as our justification), and we try to figure out just why its design is a good one." Any good designer or engineer is hungry for Vogel's insights and discoveries.

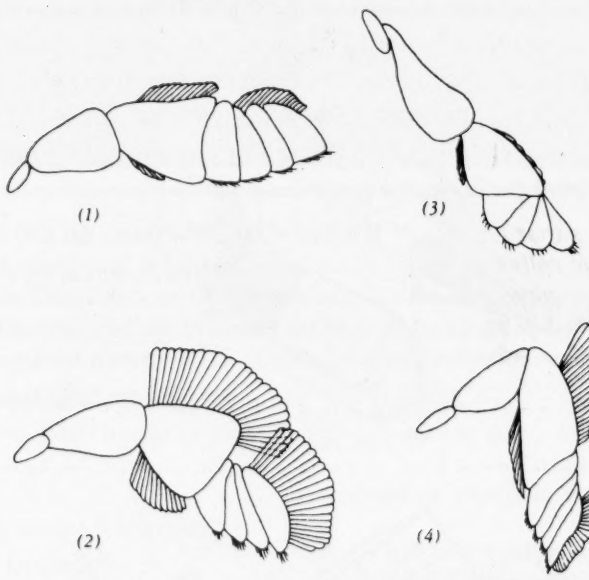
This book is so much more intelligent and fun to read than a standard fluid-dynamics text. I only hope that engineering students as well as biology students read it.—Steve Baer

Life in Moving Fluids
(The Physical Biology of Flow)
Steven Vogel
$27 postpaid from:
Willard Grant Press
20 Providence Street
Boston, MA 02116





Flight isn't the only use for lift. (a) At least one sand dollar stands on its anterior edge and operates as a colonial multi-winged craft to bring feeding currents closer to the oral surface (b).



The rowing stroke of the hind leg of the beetle, Gyrinus. **The oarlets fold back during the recovery stroke (3) and (4).**

•

A lift-producing sand dollar. First, a brief look at what must be the least obvious use of an airfoil to have emerged to date. There is a sand dollar, *Dendraster excentricus*, on the beaches and tidal channels of the Pacific coast of North America which, when exposed to currents, routinely assumes a most unsand-dollar-like posture. It buries its anterior edge in the sand and erects its posterior in the flowing water above instead of lying, half-buried, like a bump on the bottom. Moreover, these sand dollars are neither randomly nor regularly spaced out on the sand but cluster at densities of 200 to 1000 per square meter.

The existence and peculiarity of this behavior was well known but its functional significance was enigmatic until O'Neill (1978) demonstrated that each sand dollar functioned as a "lifting body.". . . Aggregation of individuals turns out to be highly valuable in mutual improvement of feeding currents.

Construction of a Solar Algae Pond

One of the Big Secrets of the success of the New Alchemist's solar "Arks" is the translucent, sun-catching fish tanks. They can be bought ready-made **(NWEC** *p. 193), but shipping that big empty space can be expensive and risky — the tanks don't have much strength until they are full of water. Shipping the materials, however, is not especially demanding on the wallet, and you can make the tanks yourself, on site, any size you want. This technical bulletin tells you where to get the stuff and how to put it together.* —*J. Baldwin*

Construction of a Solar Algae Pond
(New Alchemy Technical Bulletin No. 2)
Carl Baum and
Ron Zweig
1982; 4 pp.
$2.50 postpaid from:
The New Alchemy Institute
237 Hatchville Road
East Falmouth, MA 02536

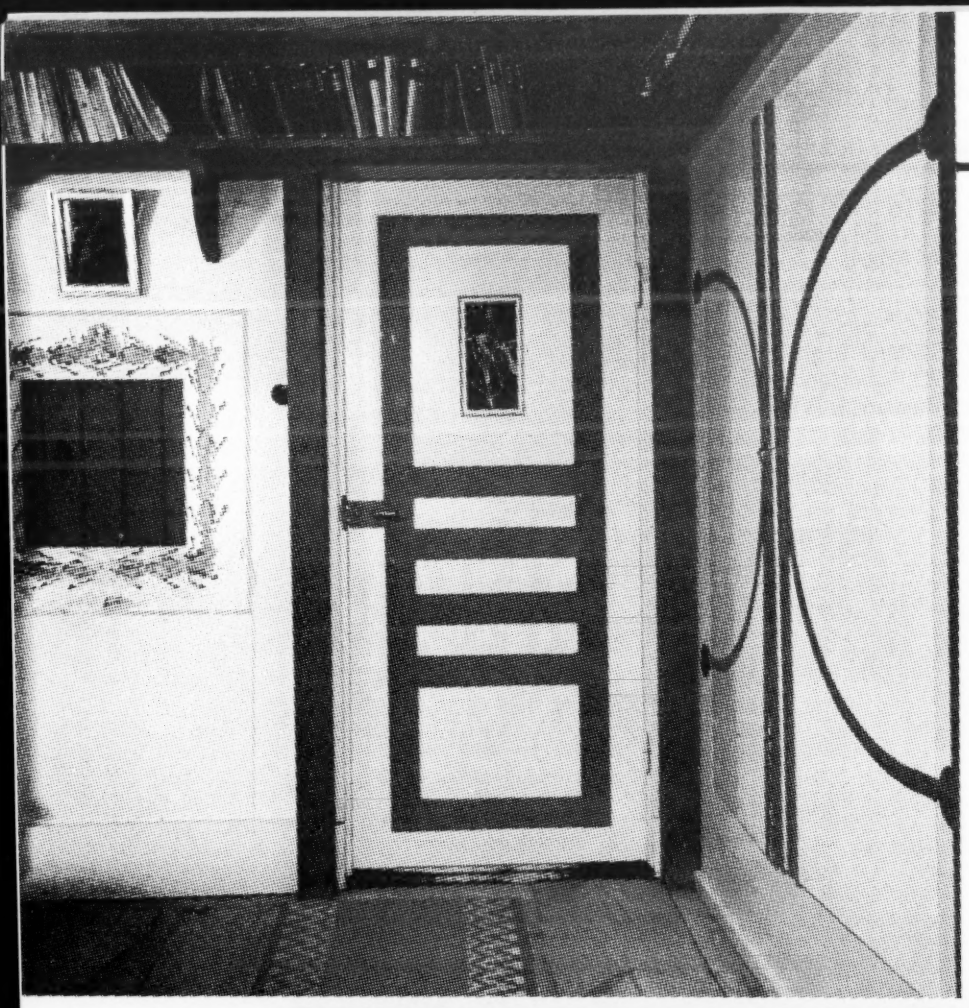
•

We have studied solar algae ponds since 1974, and are pleased to present this practical construction guide so that you can enjoy the fruits of our labors.

The solar algae pond epitomizes one of our major research goals: to develop food energy systems that maximize efficiency and minimize costs by integrating diverse functions. The pond will effectively provide heat storage, home aquaculture or warm-water irrigation, but its real advantage, as with our other designs, is that all three can be combined simultaneously.

Good luck. We hope that building your own solar algae pond is one step on the road to increased self-reliance.

The solar-algae ponds used at the New Alchemy Institute for fish culture can be purchased directly from the Kalwall Corporation (Solar Components Division, P.O. Box 237, Manchester, New Hampshire 03105), or they can be built at home at a considerable savings. While the pond dimensions can be varied to suit your particular needs, the procedure for construction remains essentially the same. The circumference and height of a pond determine the dimensions of the material used for the pond wall. The pond bottom consists of a disc of the same material used for the wall. The bottom's diameter will be slightly greater than that of the pond itself.

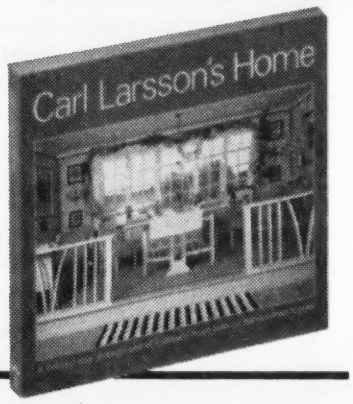


Carl Larsson's Home

This artist's home stands as an indictment of most "architecture," yes, even California Funky Handmade. It proclaims no fad. It never was New Wave or any other nameable style. Yet the intensely detailed and very personal atmosphere it celebrates is somehow so, dare I say it . . . "right" that most folks who see it are excited. This book is a color photoessay, which is cheaper than planefare to Sweden. It might be nice if architecture persons paid more attention to things like Mr. Larsson's house. By the way, much of the work and design was done by his wife Karin who gets better credit in the text than she does in the title. —J. Baldwin

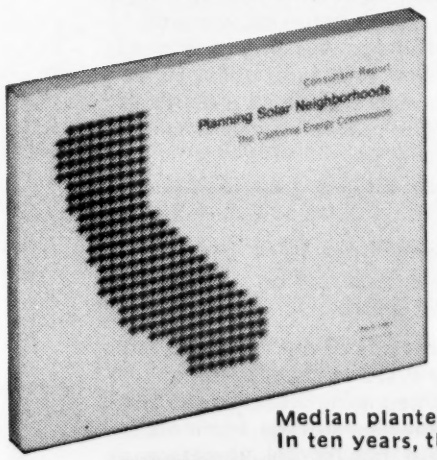
[Suggested by Peter Spectre]

Carl Larsson's Home
Karl Erik Granath
and Ulf Hard
1981; 102 pp.
$8.95 postpaid from:
Addison-Wesley Publishing
Jacob Way
Reading, MA 01867
or Whole Earth
Household Store

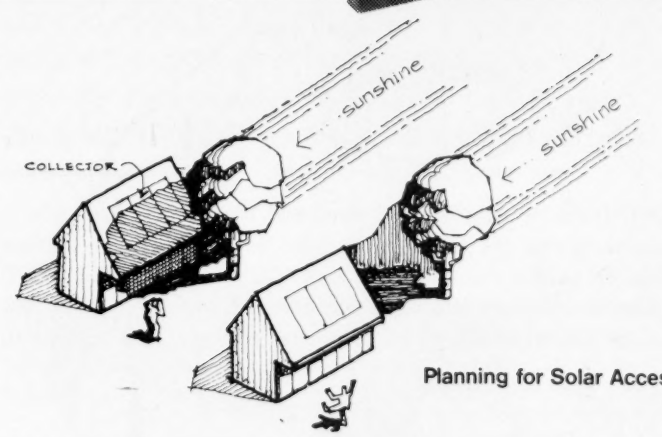


Planning Solar Neighborhoods

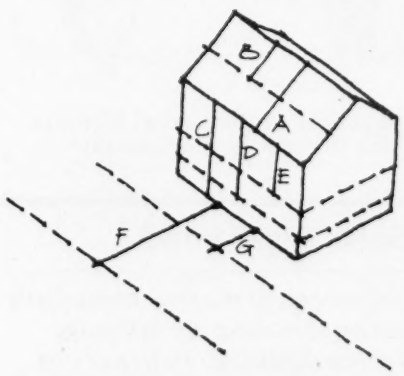
California has generally led the way in providing citizens with vital information relating to reducing the state's energy use. This report is by Jonathan Hammond, one of the folks who have been working in this field since before most people knew there was a field. His work has resulted, for instance, in one of the first solar building codes (Davis, California). In this report he outlines the basic principles that should be followed when designing neighborhoods and developments. Six distinct climates are dealt with (that's California for you), so much of the study is useful in other locales. Hopefully, those in charge of controlling housing development will read this and take appropriate action. At least now they can't say they didn't have enough information to do things right.
—J. Baldwin



Planning Solar Neighborhoods
Jonathan Hammond
1980; 180 pp.
No. 500-81-018
$7 postpaid from:
California Energy Commission
Attn: Accounting Office
1111 Howe Avenue
Sacramento, CA 95825



Planning for Solar Access



Designations "A" through "G" refer to alternative collector locations as noted in the "Minimum Building Spacing for Solar Access Table."

Median planted strip in Southern California. In ten years, the paving will be well shaded.

•

Narrower streets also help create more benign neighborhood microclimates. Work by University of California at Davis Professor Leonard Myrup in Sacramento indicates that well-shaded neighborhoods have lower maximum air temperatures in summer. Large areas of unshaded blacktop, as anyone who has walked across a parking lot on a hot summer afternoon knows, act as collectors, absorbing and storing heat that will be radiated onto adjacent homes and buildings. The shaded neighborhoods in Myrup's study were often 10°F cooler on hot afternoons than unshaded neighborhoods. Smaller species of trees can be used effectively for shade on narrower streets without compromising solar access for collectors. For wider, arterial streets, median strips can be used for tree plantings that will both reduce street width and shade pavement. Medians can be most effectively used on streets requiring four lanes of moving traffic. They can also be used to retrofit and upgrade existing streets that may have been overdesigned originally.

Solar Card

Several surveys have shown that THE most common reason for poor performance of a solar design is — believe it or not — putting the device or building in the shade. How dumb! Uh-huh . . . have you tried estimating if that tree will or will not shade the collector in January? This simple device will make that job a lot easier. It also is easier to use than many more expensive gadgets that do the same thing. Tell them where you want to use it and they'll send you the card that does the deed. —J. Baldwin

Solar Card
8" x 10"

$12.95 postpaid from:
Design Works
P.O. Box 489
North Amherst, MA 01059

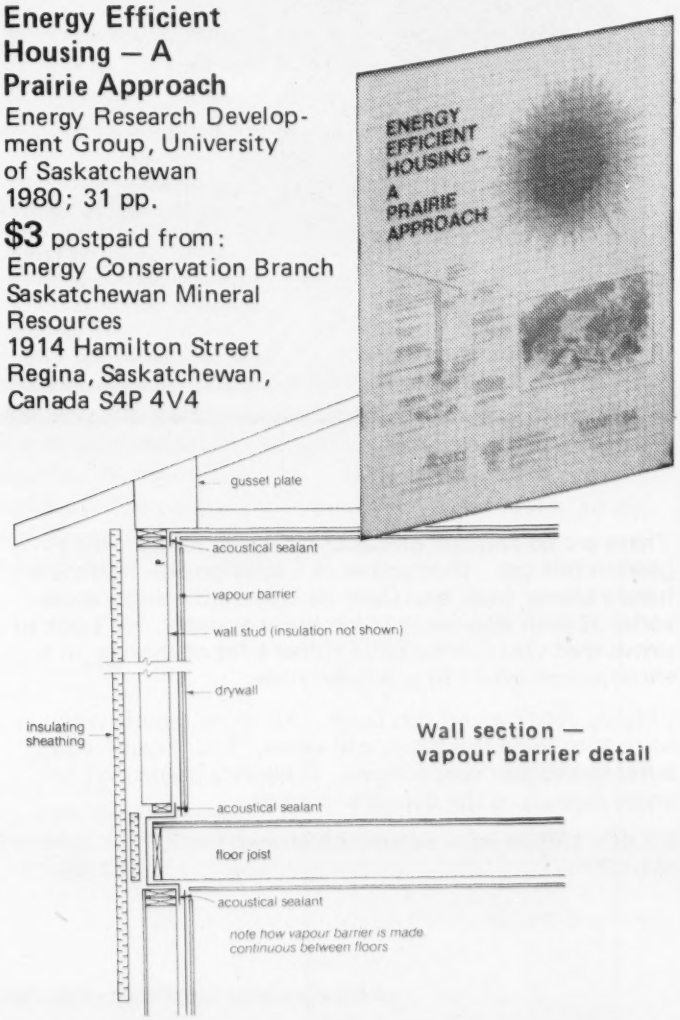
Energy Efficient Housing — A Prairie Approach

The best details I've seen on how to build an airtight superinsulated house. Clear, concise, informative, cheap.

Took me from saying, yeah, I'm going to build a super-insulated house to understanding how I'm going to do it.
—Chuck Lakin
[Suggested by David McConkey]

Energy Efficient Housing — A Prairie Approach
Energy Research Development Group, University of Saskatchewan
1980; 31 pp.

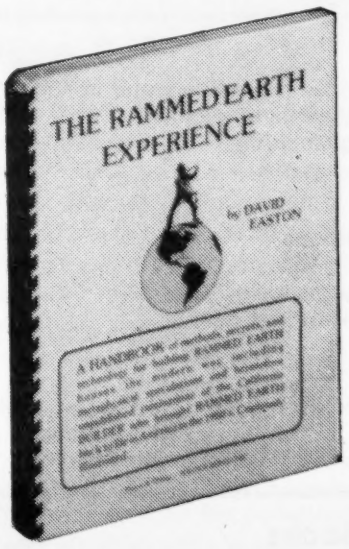
$3 postpaid from:
Energy Conservation Branch
Saskatchewan Mineral Resources
1914 Hamilton Street
Regina, Saskatchewan,
Canada S4P 4V4



Wall section — vapour barrier detail

The Rammed Earth Experience

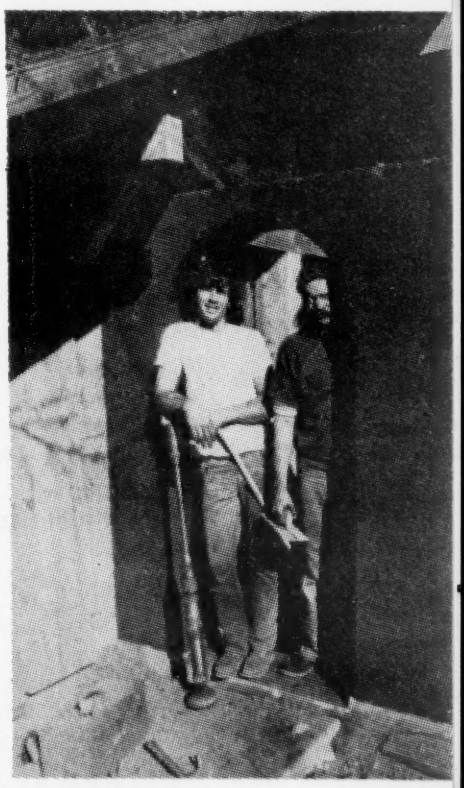
Build your house outta dirt? Yes indeedy, and if you do so, you'll be joining in an activity that folks have been into for thousands of years. Of course it's not all that simple — you need the right kind of earth, some binder, lots of labor and good sense. The rewards include pretty much the same advantages (and disadvantages) as adobe but with less work. (You probably won't save a whole lot of money because the walls are typically only about 17 percent of the cost of a house.) This friendly book gives you the encouragement to go ahead with the job — including caressing the inspector — and pretty much all the information you'll need for the rammed-earth walls and sod roof. The author assumes that you are already intelligent and have some building experience.
—J. Baldwin



The Rammed Earth Experience
David Easton
1982; 73 pp.

$11.50 postpaid from:
Blue Mountain Press
Wilseyville, CA 95257

or Whole Earth Household Store



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In some cases, the subsoil as it is excavated from the building site will turn out to be just right for good wall building. If it looks to you like it might be, why not try ramming a low wall just to see what happens? The best way to learn about rammed earth is ramming earth. You can tell more about how a soil is going to compact watching the way it reacts under the repeated blows of the ramming tool than by almost any other means.

Unless your earth stockpile seems just right, and your test wall turned out smooth-surfaced and hard, you will need to spend a little time on soil preparation. The system that we use at Rammed Earth Works involves thoroughly mixing small piles of soil using a small, front-tined rototiller.

•

In the Prairie Provinces we live in one of the coldest populated regions in the world, and the methods suggested here would not all be applicable in milder climates. However, the insulation levels used in this book would be suitable for buildings in the southern Canadian Prairies; thus, if you live in Edmonton or Winnipeg, the values suggested here are appropriate. In Vancouver, you could use less insulation; in Yellowknife, more. In any location where heating is required, however, the other information on energy conservation will be valid.

•

Proper vapour barrier installation is a crucial step for energy conservation, and the amount of discussion that we spend in this booklet on the vapour barrier is an indication of its importance.

The Anvil's Ring

Artist-blacksmithing is experiencing an international renaissance. The Artist-Blacksmiths' Association of North America (ABANA) members write this informational journal to circulate the subtleties, aesthetics, and Weltanschauung of their craft to their peers. The excellent graphics, competent layout, and good humor combine to communicate the alchemy of this very technical art.

—John Matzke

The Anvil's Ring
Dimitri Gerakaris, Editor
$25/year (4 issues; includes ABANA membership)
from:
Artist-Blacksmiths' Association of North America
P.O. Box 1191
Gainesville, FL 32602

•

Do's and Don'ts When Forging Tool Steel

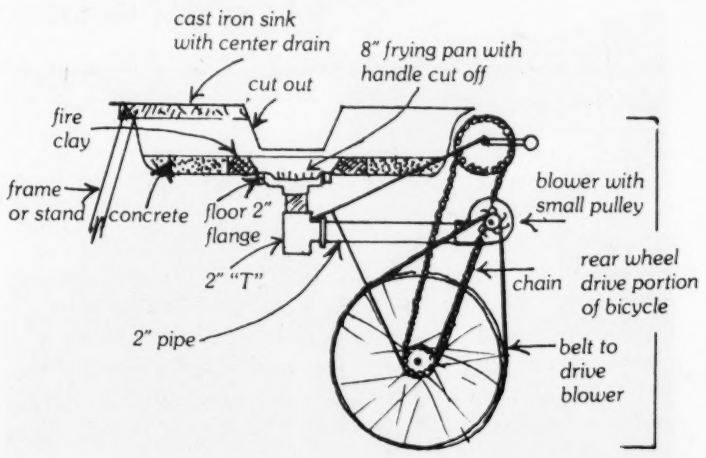
Do . . .

be sure the fire is clean with no clinkers.
heat slowly.
heat to yellow and keep forging to red.
heat to core.
brush off scale.
anneal before hardening.
quench on rising heat at sunrise red, using water at room temperature. Move briskly while quenching.
Temper *immediately* after quenching.

Don't

burn steel.
pound thin yellow-white sections.
forge below red heat.
cook too long, because it causes scale.
bend abruptly below a bright orange heat.
quench in *cold* water.
water-quench oil-hardening steel.
re-harden without annealing first.

—Brad A. Silberg
—courtesy Blacksmiths' Guild of the Potomac



Forge Diagram

Lindsay's Technical Books

Frank, useful reviews of every book in this nifty catalog make it unusual in these days of sneering at "value judgments." I especially like the selection of reprints of older technique, particularly in foundry work. Several good books on making your own precision machine tools look appealing too. If you're a thingmaker, you might find Lindsay worth knowing. *—J. Baldwin*

[Suggested by Fred Crichton]

Lindsay's Technical Books
Catalog
free from:
Lindsay Publications
P.O. Box 12
Bradley, IL 60915

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The Metal Lathe
by Dave Gingery

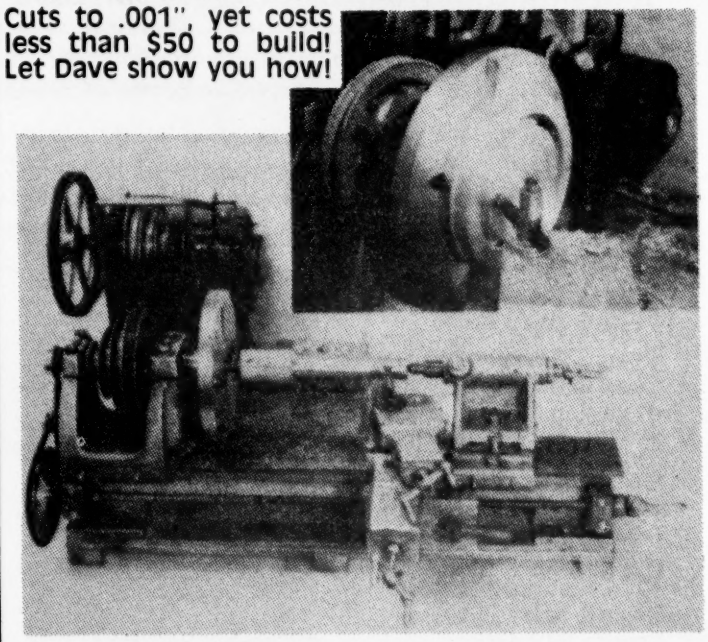
How on earth do you start with nothing and build a metal lathe capable of cutting to within .001"? People will say it can't be done. You tell them they're full of bull! In this book Dave Gingery will show you how he did it for less than $50!

The key to the process is the charcoal foundry described in book one. The only other tools needed are an electric drill, files, and other simple tools along with a simple homemade disc grinder he describes. A table saw is very handy, but you could probably borrow one or do without if you had to.

You end up with a solid precision lathe with 7" swing over the bed, about 5" over the saddle with 12" between centers. You can bore the headstock spindle and tailstock for No. 1 Morse taper if you wish. The size is limited by the one-quart capacity of the foundry. A larger lathe would need bigger castings for rigidity, but this lathe is much better than many small lathes on the market today.

Dave built two prototypes for his book, and loaned one to me to play with. What a machine! Everytime I look at it and realize how it came to be, I'm amazed. It's rigid, and believe me, it can make precision cuts in steel without trouble. My micrometer says so.

Build A Precision Metal Lathe!
Cuts to .001", yet costs less than $50 to build! Let Dave show you how!



There are no chucks, no backgearing, or screwcutting gears — not yet. That comes in a later book. There is a handy power feed, and Dave describes dirt cheap accessories as each new book in his series appears. He's out to prove that you don't need to blow a lot of money on a three jaw chuck. I'm a believer now.

I highly recommend this book. All those people who have purchased this book will agree. You'll need it to build the shaper that follows. Gingery's books will become legends in the decades to come.

5½x8½ 128 pages — heavily illustrated
No. 177 $7.95

Collar Drawing Tool

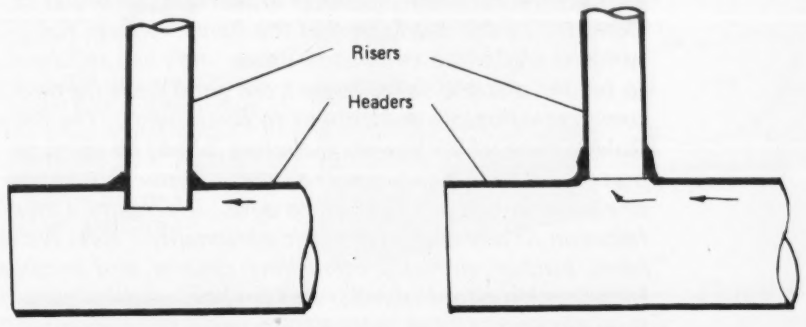
*The Aushalser (**NWEC** p. 137) works well but it costs well too. This ingenious tool from Australia works just as well and costs about ten bucks. In case you missed it, the thing enables one to reliably solder one pipe to another, as in solar collecters, without making easily cracked water-blocking joints. It's one of those simple little doodads that make a nasty job truly easy.* —*J. Baldwin*

[Suggested by Greg Hall]

Collar Drawing Tool
Catalog
$1 from:

The Solar Water
Heating Company
P.O. Box 211
Strathfield,
New South Wales 2135
Australia

FORM COLLARS ON COPPER, ALUMINIUM AND PVC TUBING WITH NEW HAND TOOLS NOW AVAILABLE.



USUAL METHOD
Risers inhibit free flow of water in header.

IMPROVED METHOD
Drawn hole supports risers ready for silver soldering. Water flows freely.

Hilti tools

*Well J. Baldwin: One-upmanship on the Lewis Mole (Spring '82 **CQ**) — the Hilti T-52 can drill a four-inch hole 36" and beyond in concrete. Yup. A combo drill-hammer-chisel, these Hiltis are in use by contractors across the country. Watched the guys in the building across the street retrofit a new prehung door in an old masonry frame — carved the old stone away with their Hiltis, drilled and set expansion bolts, and had the doors swinging before I had the breakfast dishes washed, though I might have gotten to them sooner.*

Hilti also makes an amazing line of high-power rivet guns — you can punch through an I-beam with them, no kidding. On display at your Hilti dealer, in all major cities. On-site service, and the tools can be rented.

I really like the way these things feel, you know? Like a really fine Milwaukee power saw or drill, kind of the way your mouth waters when you think of something you really want to eat. —*John Benecki*

Hilti tools
Nearest dealer information
free from:

Hilti Fastening Systems
P.O. Box 45400
Tulsa, OK 74145

Bike Tech

*The ever-excellent **Bicycling** magazine (**NWEC** p. 408) has hatched an offspring intended to serve those interested in the design and theory of their machines. The first two issues are physically thin, but the content is better than I had dared hope. The editors have built devices that can test such arcana as frame stiffness and stress transfer, areas generally known only through rumor, tradition, and guess. Some of the subjects covered have a validity that serves more than the bicycle trade. For instance, an article on parts standardization offers some fine insights into how planned obsolescence occurs in any field. Altogether commendable and most welcome. (I've subscribed.) The editors hope **Bike Tech** will become an information clearinghouse, something that has been needed for a long time.* —*J. Baldwin*

Bike Tech
John Schubert, Editor
$9.97/year (6 issues)
from:
Bike Tech
33 East Minor Street
Emmaus, PA 18049

BOX 428 SAUSALITO CA 94966

Break Free

This is the only "miracle lubricant" I've found that'll pass my personal Supreme Test For Miracle Lubricants, to wit: will it free up a thoroughly rusted-tight VW beetle door hinge and keep it freed up? It did! It does! And I've found that it will free up lots of other hopeless things too if you give it some time. It's made for guns. A 16-ounce can sells for $9 (approximately) and can be found in most gun shops. —*J. Baldwin*

[Suggested by Keith Perkins]

D.R.I. Industries

These people are the purveyors of those plastic cabinets with all those little drawers filled with various nuts and bolts and etc. For me, the contents are a bit too much, though a household unequipped with a rummage box might find such an assortment useful. I am enticed by the low prices on quantities of various fasteners. For instance, I recently received my order for pop-type rivets from D.R.I. and the bill including postage was almost exactly one-third of the local quantity price. Such a deal! It's an especially good deal when your local hardware store only carries fasteners in little drawers or blister paks. D.R.I. service is a tad slow for my taste but worth the wait. —*J. Baldwin*

[Suggested by Jim Baldwin, no relation.]

D.R.I. Industries
Catalog
$1.00 postpaid from:

D.R.I. Industries
11100 Hampshire
Avenue South
Bloomington, MN 55438

THREADED INSERTS

Brass Alloy Shown Actual Size	Catalog Number	Average Retail Price Per Dozen	Your Price Per Dozen
6-32 screw size (Drill hole size 11/64)	20105500	$3.36	$1.95
8-32 screw size (Drill hole size 11/64)	20105600	3.60	2.05
10-24 screw size (Drill hole size 7/32)	20105700	4.00	2.30
10-32 screw size (Drill hole size 7/32)	20105800	4.00	2.30
1/4 x 20 screw size (Drill hole size 7/16)	20105900	$ 5.19	$2.88
5/16 x 18 screw size (Drill hole size 1/2)	20106000	6.72	3.68
3/8 x 16 screw size (Drill hole size 17/32)	20106100	16.36	8.68

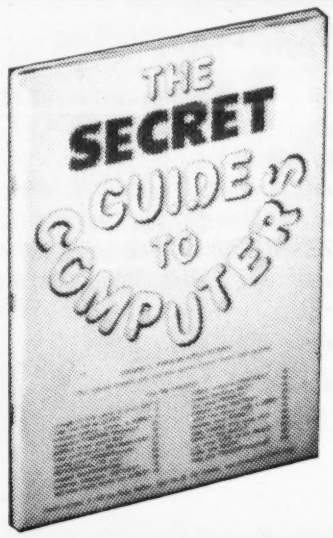
The Secret Guide to Computers

Though the personal-computer subculture continues to explode, it's still kept some of the fierce honesty for which it was noted in its early years. You can still learn to tell rip-offs and failed ideas from good deals by finding someone reputable and patient to gossip with. The **Secret Guide** *is one of the few introductory books to carry on that tradition in print, and the only introductory survey of equipment that is kept up to date. It's clearly a manifestation of one man's eccentric personality. Russ Walter jokes, bitches, enthuses, condemns, charms, and irritates. He prints his phone number and answers readers' questions for free. ("You can call 24 hours; I'm almost always in, and I sleep only lightly.") He's kept that up several years without burning out; you might think he's crazy, but you have to give him credit.*

The eight volumes of the **Secret Guide** *come in pairs, each of which consists of an introductory overview book and a more detailed commentary. The pairs successfully cover programming in BASIC (volumes one and two), buying computer systems (three and four), buying computer programs and programming specific chores (five and six), and other computer languages (seven and eight). They're cheap enough that you might want to go for the whole set. Though they're stronger on home use than business use, they all tell the bald truth in comprehensible language. It's an interesting kind of discipline for the author to know that if he doesn't tell it well in the book, he'll have to tell it over and over on the phone.*

—Art Kleiner

The Secret Guide to Computers
Russell M. Walter
1981; 8 volumes
$3.70 each postpaid from:
Russell M. Walter
92 Saint Botolph Street
Boston, MA 02116



•

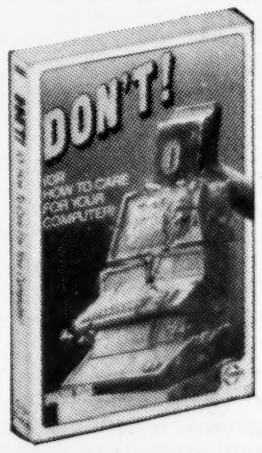
The Apple microcomputer contains a speaker that can make a very fast sound. The sound is a "click," so fast and brief that you can hardly hear it. You can program the Apple to make a click, then a pause, then a click, then a pause, etc., repeatedly, so quickly that your ear can't hear the clicks and pauses: it hears just a whirring sound. By changing the lengths of the pauses, you can change the pitch of the whirring sound: in other words, you can make the whir sound be a high note or a low note. By fancy programming, you can make the computer produce such whirring notes and combine them to form music. You can buy a program that makes the Apple even produce four-voice harmony.

Newer microcomputers (such as the ones by Atari, Texas Instruments, and APF) have the music built in, so the programmer doesn't have to compute lengths of pauses and numbers of clicks. —Volume 3: Popular Systems

DON'T!

Along with the hardware and software, a key element of any computer system is the human being in front of the CRT. Even the most reliable computer can crash as a result of careless operating procedures and work habits. **DON'T!** *is a thoughtful and well organized primer on the care and feeding of your home or business computer. Covering the computer itself, peripherals, and software,* **DON'T!** *outlines procedures which will help ensure the integrity and security of your system and data. Zaks's most important bit of advice is, "Don't . . . unless you know what you are doing."* *—David Burnor*

DON'T
(Or How to Care for Your Computer)
Rodnay Zaks
1981; 218 pp.
$12.70 postpaid from:
Sybex
2344 Sixth Street
Berkeley, CA 94710



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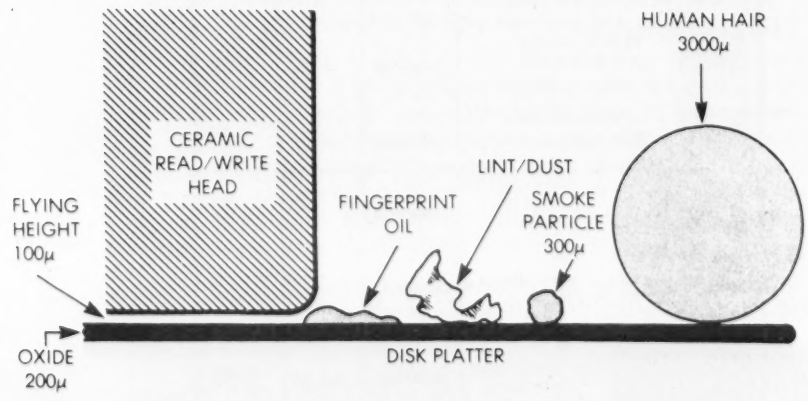
The illustration shows the low tolerance level that a hard disk has for external pollution. Any particle on the surface of a disk will cause damage to the surface and/or the read/write head. Data will be destroyed and it will be impossible to recover the data using traditional methods. In addition, if the read/write head has been scratched, the entire disk unit becomes unusable. Protection against dust and pollution is therefore the prime consideration when using a hard disk. The use of a closed circuit airconditioning unit with an efficient filtering system is almost a mandatory requirement when using hard disks.



Sizes of Common Pollutants

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Remember: don't put your telephone on top of a diskette, a box of diskettes, or even the disk drive. If the telephone rings while on top of a diskette or disk drive, it will wipe out any diskettes underneath it. (If you have any doubts, try it on an old diskette.) Keep the telephone cord short enough so that the telephone can never be inadvertently placed on top of disk drives or a work table where diskettes might be lying.

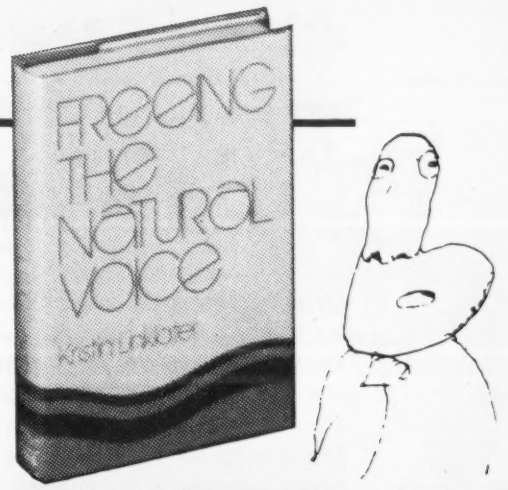
Any metal object should be suspected of being magnetized. In particular, screwdrivers and paper clips tend to become magnetized over a period of time. A magnetized screwdriver placed in close proximity to a diskette can damage the data. Similarly, car keys and other metallic objects may become sufficiently magnetized to affect a diskette. Always store diskettes in a proper container away from electromagnetic radiation.

Diskettes must also be protected from static. In a dry environment, static electricity can build up. In particular, if a computer room is equipped with wool carpeting, it is possible for up to 15,000 volts of static electricity to build up in the body simply by walking on the carpeting.

Freeing the Natural Voice

There is a Zen admiration for the artist whose hand draws an image the moment it enters the mind. This book admires the voice that does that and describes how one's voice can become congruent with one's thoughts and feelings. It's written for actors, but I was attracted by its vision of the voice's potential and the exercises which give substance to the entire book. Linklater says inarticulate speaking and sloppy thinking are linked; improvement of one leads to improvement of the other. The precision and clarity of this voice teacher's prose testifies to that. When she discusses the breath and one's center (areas where many authors slide off into esoteric generalities), she proceeds with accurate observations, well-expressed warnings, and numerous pragmatic exercises. She knows these areas, and she communicates that knowledge with ease. —*Paul Krapfel*

Freeing the Natural Voice
Kristin Linklater
1976; 215 pp.
$12.50 postpaid from:
Drama Book Specialists
150 West 52nd Street
New York, NY 10019
or Whole Earth Household Store



Think the sound b.

•

Step 7

The exercise: to choreograph a mobile sculpture of sound consisting of six or seven distinct shapes. Rehearse the movements your mouth goes through until you can repeat them accurately like a dance.

▪ Use the combinations explored in the preparation to choreograph a word or sculpt one.

Here the idea is to create a "word" entirely through physical processes rather than through an aural/mental concept of a collection of syllables. The objective is to open up as many channels in the nervous system as possible which can respond to a word when it is received or conceived in the brain.

▪ Rehearse the sequence of touchings and partings that your mouth goes through as it molds the vibrations, physically, in the way you might teach your feet a sequence of dance steps. (Your ear will hear the result, but you should ignore the aural feedback in favor of the physical awareness.) Example:

1) hu-u-u-u-uh (stream of vibrations from center)
2) back of tongue lifts to uvula, vibrations gargle between them
3) front of tongue pushes down between lower teeth and lower lip then flicks out of mouth as breath sucks in, stopping the flow of vibrations
4) front of tongue touches top lip finding vibrations between their surfaces
5) tongue drops back into mouth leaving an open passageway for the vibrations
6) middle of tongue presses into roof of mouth stopping sound for a moment, then pulls away releasing the sound
7) teeth clack shut and open twice on sound

You can use this "word" as the basis for a two-person improvisation. Find out how you feel as someone communicates a physically constructed word to you if you listen physically too. Take it in on your breath, breathing it down to your center, so that you are listening with your whole body. Then answer through your own physical word.

Allow these "dialogues" to continue for some time, maintaining the physical choreography of the word but allowing the changing energy of the dialogue to change its qualities (pace, rhythm, volume and pitch). Try not to let the word make *literal* sense. Do not domesticate the exchange by bringing it into a familiar context, such as improvising a scene in a supermarket, a boy-meets-girl scene, or an argument. The primitive, physical word should lead you into nonrepresentational communication.

•

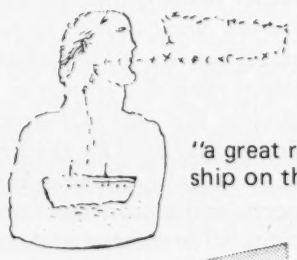
The empty canvas acts upon the mind. The mind produces images which stimulate the breath and feeling energies. These energies release from the body to paint the canvas with the images.

This is the blueprint for a dialogue, simplified but accurate. Mr. A acts on the mind of Ms. B, either with his simple image, or with words and deeds. Ms. B's mind stimulates breath/feeling energies which find words in her mind to express those feelings which can then escape from her body to act on Mr. A's mind/body. A dialogue can begin. In a monologue it can be an external situation or an internal condition that provides the initial stimulus. Words are the added ingredient that complicate but do not invalidate the working process of the original blueprint.

▪ Paint the seascape again, with exact imagery, and in your mind add a word description that lasts as long as each image and breath lasts. For example:

▪ Thought: "A long horizon of blue sea waves."

"a long horizon of blue sea waves"



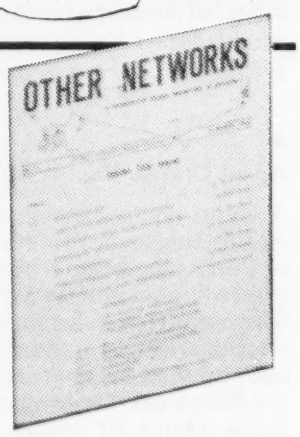
"a great red ship on the sea"

"a mast . . ."

Other Networks

Of the several guides and directories to networking groups that have appeared recently, my favorite is this quarterly xeroxed newsletter. It's simple, it's informal, it contradicts itself, it's got spirit. Though I personally don't have much patience for the sloshy writing one usually sees about networking, I agree that keeping in touch with a diverse but organized web of individuals is an immensely valuable social/political tool. **Other Networks** *serves well as a (mostly) slosh-free starting point for people who need people.* —*Art Kleiner*

Other Networks
(A Newsletter about Networks of People)
Seth Horwitz and Stan Pokras, Editors
$15/year (4 issues)
from:
Public Interest Media Project
P.O. Box 14066
Philadelphia, PA 19123



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Around 1870, a group of hobbyists who all owned their own printing presses, and who had been sending matter that they had written to each other in the mail, decided that it would be simpler to all mail their printing to one person, who would collate it, and mail to each contributor a package containing one copy of each contribution. Thus was born the United Amateur Press Association (UAPA). By the 1920s this and other "apas" had evolved into forums for conversation. H.P. Lovecraft, the horror-fantasy writer, belonged to an apa in the 20s. When science fiction fandom began in the 1930s, fans who were members of the "mundane" apas spread the idea. SF fans took to it so well that South of the Moon (SOTM), the index of apas within science fiction fandom, now lists more than 70 apas.

Content **Style**

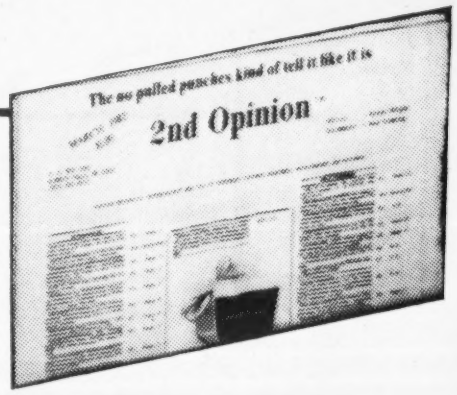
Consequence

2nd Opinion

I have always been the kind of person who reads the classified ads in magazines and sends for a lot of the information advertised. This costs me a lot of money. Some of the information I purchase is not worth what I pay. I have longed for a publication that would critique such ads and give a clearer idea of what you get for your money. **CQ** *and* **WEC** *have performed this service to a degree, but they do not specialize enough in my areas of interest and omit poor-quality sources rather than comment negatively.*

2nd Opinion *comments on ads in the classified sections of* **Popular Mechanics, Popular Science,** *and* **Mechanics Illustrated.** *I spent over $1000 per year on newsletters, magazines, books, and printed information. It's about time some business started to cater to my wants. —J. Garwood*

2nd Opinion
Bruce Knight, Editor
$15/year (4 issues, 8 "flash reports")
from:
2nd Opinion
P.O. Box 1095
Klamath Falls, OR 97601



PATENTED gas saver that works. Fuel savings proved in economy tests. Government certified laboratory. Easy installation. $12.95 to: Milton's Enterprises, P.O. Box 3124, Houston, Texas 77001

Reviewed Nov. '81 Jan. '82

Their "gas saver" is a RAMJET ($12.95). Never could get it to work right. Sent it back Nov. 4. No response.

Content **Style**

Consequence

NCAP News

The people can do some amazing things when they rise up. The people in this case are the denizens of the Pacific Northwest, which has borne the brunt of the U.S. Forest Service's heavy reliance on highly toxic chemical defoliants. The amazing thing is the **NCAP News,** *published by the Northwest Coalition for Alternatives to Pesticides. NCAP was formed in 1977 to coordinate local opposition to herbicide spraying and succeeded in forcing the Environmental Protection Agency to impose an emergency suspension of pesticides using 2,4,5-T and Silvex, both of which contain highly toxic dioxin. That was an amazing thing in itself. NCAP has since expanded to include over 50 member groups located primarily in rural areas, where agricultural and forestry spraying are heaviest.*

NCAP News *is their publication, and though it's intended for the Northwest, it publishes information that's outstandingly useful nationwide. There's plenty of hard, in-depth reporting (it was an NCAP exposé that busted Industrial Bio-Test laboratories for falsifying health and safety data used by the EPA for registration of hundreds of chemicals) as well as book and film reviews, local reports, and suggestions for decreasing reliance on pesticides, all presented without the flippancy sometimes associated with grassroots environmentalism. All in all, the best of its kind in the country. —Joe Kane*

[Suggested by Alice Widdershins]

•

MOTORFUEL 18¢/GALLON! Incredible alternative already in use. Do something about runaway petroleum prices. Save Hundreds! Oracle, LB 464, Woodstock, IL 60098

Last Oct. 5th I sent back to them their "Make Your Own Solar Fuel Still" and asked for my $20 back. Dec. 14, we reminded them. Have received no word.

Agent Orange Report Stifled

A report highly critical of the government's handling of Agent Orange and veterans' disabilities was prepared prior to the Inauguration of President Reagan by the staff of the House Subcommittee on Oversight and Investigation. The Subcommittee, substantially reconstituted since the 1980 elections, has refused to release the report. It was nevertheless obtained by environmental reporter Richard Severo of the **New York Times**, and described in an article in the **Times**, March 19, 1981. NCAP has obtained a copy of the report; what follows is a summary of its contents.

The report focuses on two areas: the circumstances of exposure of soldiers to Agent Orange in Vietnam, and the handling of the issue of disability resulting from that exposure.

Department of Defense Liability

The report documents the extremely heavy use of Agent Orange in Vietnam, and the failure of the Department of Defense to protect servicemen from the toxic effects of the herbicide. The DOD refused to acknowledge the toxicity of the compound or the hazard it presented, even after new toxicity evidence was released by the National Cancer Institute in 1969. Spraying continued in areas where troops were present even in the face of a White House directive to stop such use and to phase out all Agent Orange operations. . . .

Veterans Administration Inaction

Two studies of veterans exposed to Agent Orange have shown effects consistent with exposure information gathered in Vietnam and following industrial accidents in the United States and Europe, as well as with animal tests done in the laboratory. The epidemiological data on veterans consists of an evaluation of responses by Drs. Jeanne and Steven Stellman to a Citizen Soldier questionnaire, and personal examinations of veterans by Dr. Gil Bogen. The two studies of veterans show remarkably similar results, with the array of observed symptoms including rashes, joint pain, depression, dizziness, violent rages, loss of libido, nausea, diarrhea, constipation, hepatitis and loss of appetite. Yet, the Veterans Administration refuses to recognize any symptoms other than chloracne as a basis for disability claims for exposure to Agent Orange. Moreover, because of controversy and litigation over the VA's insistence on retaining control over study design and conduct, rather than allowing these to be independent of the agency and hence more objective, the VA has yet to begin its own epidemiological study as mandated by Congress in December 1979.

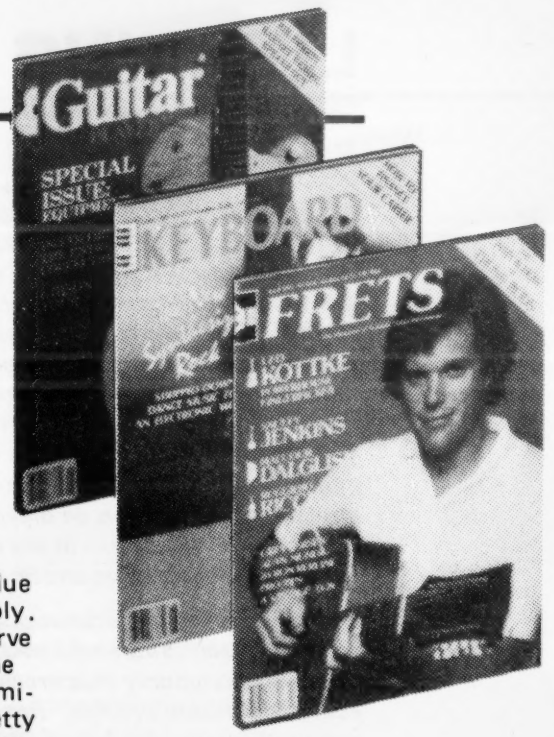
—Ann Tattersall

NCAP News
Nina Groutage, Editor
$8/year (4 issues)
from:
Northwest Coalition
Against Pesticides
P.O. Box 375
Eugene, OR 97440

Content THUMBS UP Style THUMBS UP Consequence THUMBS UP

Guitar Player • Keyboard • Frets

GPI publishes this trio of music magazines for musicians who are tired of reading glitz and would prefer to read about how to play music — as well as build, buy, and maintain music equipment. **Guitar Player** *covers electric guitar,* **Frets** *covers acoustic string instruments, and* **Keyboard** *covers, well, keyboards. All three are long on info for the dedicated musician, whether jazz, rock, or classical, beginner or pro. Most of the staff are musicians, columns are written by the likes of George Duke, Earl Scruggs, and Larry Coryell, and even their ad policy is single-minded: they won't take any ads not directly related to the business of playing music. Their emphasis on helping people to entertain themselves has caused them to boom during the current recession, growing by a full third in 1981 alone. A lesson here for the mag biz. —Joe Kane*



Guitar Player
Tom Wheeler, Editor

Keyboard
Jim Crockett, Editor

Frets
Jim Hatlo, Editor

Each
$17.95/year (12 issues)
from:
GPI Publications
Subscription Department
Box 28836
San Diego, CA 92128

•

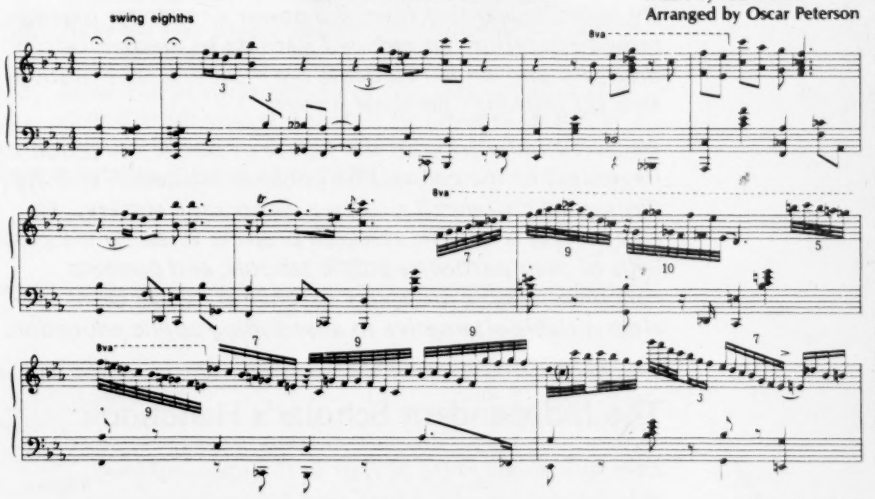
Most of those recordings were done on a Neve 36, which is probably one of the finest recording consoles ever made. It has an incredible amount of headroom [extra dynamic range to minimize distortion], and it is very, very quiet. My favorite microphones are the pencil-condenser types. Sometimes I'll use Neumann KM-84s or Sennheiser 451s or 452-DBs to record a guitar. Almost always with an acoustic guitar I'll use two mikes, so it's a stereo recording, which is one reason why it sounds like I'm recording an eight-foot guitar. What you get is a left and right perspective, or as you listen to the guitar the way I mike it, a high-string and low-string perspective. **—Guitar Player**

•

Leo Kottke: I broke my thumbnail recently; it's hung together with glue and tissue paper. [Flamenco guitarist] Paco de Lucia showed me how to do that. First, if you have a piece of the nail left, you glue it back on with Super Glue, let it dry, and put another coat of glue on. Then you take a piece of two-ply tissue paper, Kleenex, and you split it into single ply, put a single ply over there, let it get tacky, put more glue on, then put on the other ply. Let it dry, and then just carve it into shape. It's the same thing as fiberglass. You laminate a nail and it works pretty well, and it sounds a lot better than those plastic false nails. **—Frets**

"Ain't Misbehavin'"

Music by Fats Waller
Arranged by Oscar Peterson



Ain't Misbehavin' © 1929 Mills Music, Inc. Copyright renewed. Used with permission. All rights reserved

—Keyboard

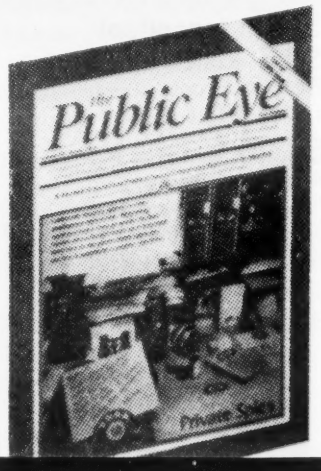
Content THUMBS UP Style EH! Consequence THUMBS UP

The Public Eye

On off days I tend to think that the Left and the Right are equal pains in the neck. The rest of the time, the Right clearly takes the cake in its ability to wreak havoc with my life. As I've found living in a constant state of paranoia to be debilitating, I especially prize reliable info which converts political threats from the status of ghoulish conjectures to more real — and thus manageable — dimensions.

The Public Eye *specializes in investigating that strange nexus where the far right, the government intelligence community, and private spooks begin to merge. Recent issues have included special reports on the vigilante Posse Comitatus, private political and corporate spy networks, and police brutality. Affiliated with the National Lawyers Guild Civil Liberties Committee,* **The Public Eye***'s sympathies lean leftward, but the information here seems reasonably objective. (Many of the articles are written by freelance investigative journalists.) Publication dates have been sporadic in the past (averaging once or twice a year), but the editors vow renewed efforts to come out quarterly.* *—Jay Kinney*

The Public Eye
Chip Berlet, Editor
$8/year (4 issues)
from:
Citizens in Defense
of Civil Liberties
Suite 918
343 South Dearborn Street
Chicago, IL 60604



BOX 428 SAUSALITO CA 94966

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A Two-Way Street . . .

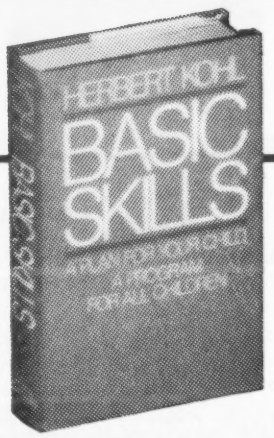
Information sharing among former and current intelligence personnel is a two-way street. Evidence from the Detroit anti-spying lawsuit showed both city and state "subversive" files wound up in the hands of corporate security agents. John Ware, a former Detroit police intelligence officer, who later joined the Chrysler security force, testified that police and Chrysler security agents collaborated on monitoring and collecting files on militant rank-and-file union activists. "There was created an old boys network that allowed both formal and informal connections," said attorney Richard Soble, who is suing the police for illegal surveillance of activists. "They monitored groups that raised union issues, such as wages and working conditions, much more sharply than those discussed at the bargaining table," Soble noted, "and some of the information gathered was purely political." Much of the information was traded through the "back door" according to Soble, "a lot of it went on over the phone." —Chip Berlet

Basic Skills

No one seems to doubt any more that for the majority of American children, the public school system is failing in its stated purpose, i.e., to educate them. Many parents see no alternative but to place their children in private schools (if they can afford it), or to teach them at home, a practical alternative discussed in John Holt's **Teach Your Own** *(Summer '82* **CQ***). These alternatives solve the education problem for individual families, but leave the public schools no better than they were. As Herbert Kohl points out, the decision to remove our children from the public school system is an ultimate declaration of our loss of faith in democracy — in the public education which is the cornerstone of democratic government.*

The failure of public education, Kohl says, is more than a failure to teach children to read, write, and compute sums. These are commonly misperceived to be the "basic skills" education should provide. But in fact reading, writing, and mathematics are only tools of the true "basic skills" children need: the ability to think for themselves, to take responsibility for their own lives, to acquire knowledge continually in order to participate in (i.e., to control) the social, political, and economic processes that affect them. By isolating learning from the power knowledge bestows, public education has reduced learning to mechanical drudgery and denied students the most effective motivation for learning: personal power.

Herbert Kohl attributes the failure of public education to its neglect of the connection between education and the "informed citizenry" vital to a democratic society. He offers parents specific research projects to assess the problems of their particular public schools, and presents concrete, feasible proposals for change. **Basic Skills** *provides a viable alternative to abandoning public education.*



Basic Skills
Herbert Kohl
1982; 245 pp.
$12.95 postpaid from:
Little, Brown and Company
200 West Street
Waltham, MA 02154

Whether or not we have children in school, we have both the right and the responsibility to exercise control over public education. Changing the system will not be easy, but the alternative —abandoning public schools — will only perpetuate the helplessness and despair of a nation increasingly governed in secrecy and controlled by special interests that thrive on public ignorance. —Carol Van Strum

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The first time I saw a school district purchasing catalog I was astonished. The prices the district was paying for supplies like chalk and paper, and for books, was higher than some items cost retail and higher than all of them cost at bargain outlets. In addition, I noticed that the district had several high-paid purchasing agents, a number of secretaries, a fully staffed warehouse, as well as several trucks and drivers all employed in the ordering and distribution of supplies and books.

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Any education program that will try to empower all the children in our pluralistic democracy *must be built on an analysis of the strengths children bring with them to school and take into account the continual nonschool learning of young people.* This could be called the first principle of educational reconstruction. Applying that principle, it will be possible to build a program on the strengths of students rather than assume they are empty vessels waiting to be filled, or people who because they are young have deficiencies that have to be remediated through schooling.

The Independent Scholar's Handbook

Ever talk about Plato at four in the morning in a doughnut shop with a well-read blue-collar stranger? That's the feeling this book evokes. The author (who also wrote **The Lifelong Learner, NWEC** *p. 575) doesn't describe the ways to get accreditation, academic legitimacy, or even intellectual power. He tells how to find out the things that would change your life if you took the trouble to learn them, how to tell other people about them, and how to support yourself meanwhile. The methods include reporting and cultivating experts, but mainly forming the kind of relationship with libraries that master chefs have with their food suppliers. The book is full of anecdotes about independent researchers like Eric Hoffer that make you want to follow up everything they ever wrote; but more important, it's full of solid advice, the kind that will be news even to people who have pursued this particular path with a heart for years.* **CQ***'s best contributors always seem to work this way. —Art Kleiner*

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Considering publication may prove to be more valuable than merely suggesting wider audiences for your findings. It should be an essential exercise and discipline for any scholar in any scholarly field. Scholarship that does not find ways to communicate its products beyond its own inner circle will fail to command sustained support from the society, and it may lapse into pedantry or obscurantism. "If you cannot — in the long run — tell everyone what you have been doing," physicist Erwin Schrodinger says in *Science and Humanism*, "your doing has been worthless."

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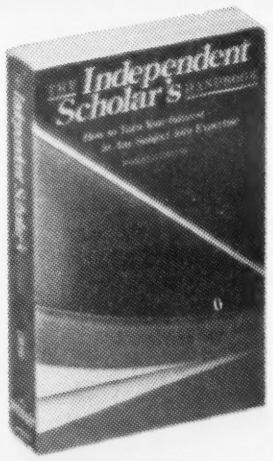
When I asked Betty Friedan what overall lesson or moral she would draw for independent scholars from these experiences in conceiving, researching, and writing **The Feminine Mystique**, she said: "It probably has something to do with becoming intellectually autonomous. From my own experience — and those of other researchers and writers I know such as Al Toffler, Caroline Bird and even you, Ron — I have the sense that the independent investigator often has a stronger sense of self, and sense of mission, than the institutionalized academic. Maybe the reason is that she or he is pioneering on an unknown road. We freelancers, for that's what many of us are, have to structure a growth pattern for ourselves — we can't just settle into a professorial "role" that's already there, provided by an institution. In many cases we have to innovate, to find something truly new and important, if we want to interest editors and readers, and command a following. No one pays much for rehashed, dull, or derivative writing — unlike the recognition which such stuff can command in academe.

"The net result of all these pressures, if you can cope with them reasonably successfully, is a good, healthy, strong sense of taking control of your own life. That can be a powerful element in anyone's personality. It's a taste of what the women's movement did for so many of us. The most frequent — and the most gratifying — thing that readers write or say to me about my book is "It changed my life." Well, that book and the movement clearly changed *mine*. And I think that even in areas and fields that do not have this enormous import for our whole culture and society, a personal experience in following one's own mind where it leads can change your life for the better."

The Independent Scholar's Handbook
Ronald Gross
1982; 261 pp.
$8.95 postpaid from:
Addison-Wesley
Publishing Company
Jacob Way
Reading, MA 01867
or Whole Earth
Household Store



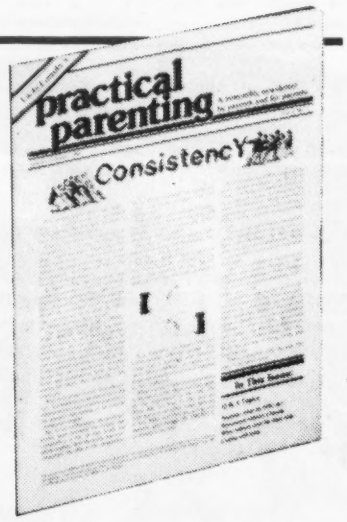
Practical Parenting

A bimonthly "Hints from Heloise" for parents, asking and answering one another's questions on more subjects than anyone who hasn't raised a child could imagine: sleepwalking, bed wetting, toxic peanut butter, Little League baseball, kids' parties, "kidvid," infant nutrition, vegetarian babies, toilet training, baby sitters, snacks, "kiddie kleptomania," single parenting, home remedies, sexual exploration, teething, allergies, defective toys, working parents, school lunches, bullies, coping with a biter, grandmas and junk food, left-handers, auto travel, etc.

In addition, there are book reviews, consumer product reviews, and informative articles, and active participation by readers is sought via an interesting questionnaire in each issue, with responses published in the next. Even the most dedicated, loving parents in our society find the job of raising children to be a lonely, demanding, and unsettling experience at times. **Practical Parenting** *provides a communication network for them, with much humor, reassurance, advice, and useful information.* —*Carol Van Strum*

Practical Parenting
Vicky Lansky and
Kathryn Ring, Editors

$6.50/year (6 issues)
from:
Practical Parenting
18326A Minnetonka Blvd.
Deephaven, MN 55391



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Stepping Out the Easy Way

I've formed a baby-sitting coop in our neighborhood. It works on a point system: one point per 15 minutes of sitting. Everyone starts out with 100 points and adds or subtracts, depending on sitting done or used. If people want to drop, they must leave with 100 points. We've limited the membership to 12 and want everyone to know one another. We meet once a month; the kids play and the moms get to talk together—Karen Embree, Seal Beach, CA

•

Parents forum:

Q. 1. What are the best presents you've found for SECOND new babies (when the first has everything, hardly worn or used)?

Q. 2. What did your family do to celebrate the holidays in non-material ways this last year?

Q. 3. How do you handle a child who's exceptionally "something" — pretty, smart, talented, athletic, or whatever — keeping him or her from becoming obnoxious or overbearing? And how do you handle comments from others?

Q. 4. How do you divide household/child-rearing chores with your spouse?

Q. 5. How and at what ages have you weaned your children? Have you any special techniques to share?

Your questions in need of answers

Your children's names and ages

CHILD-to-child Programme Newsletter

"CHILD-to-child is an international programme designed to teach and encourage older children and especially school children to concern themselves with the health and general development of their younger brothers and sisters. Simple preventive and curative activities as well as games, play and role-playing can be taught to the children in school, so that they may pass ideas on in the family or community environment. Initiatives and encouragement from government and other official sources help support teachers and older children in their activities. This Newsletter records some of the CHILD-to-child projects which are being planned or are actually under way in different parts of the world." —**CHILD-to-child**

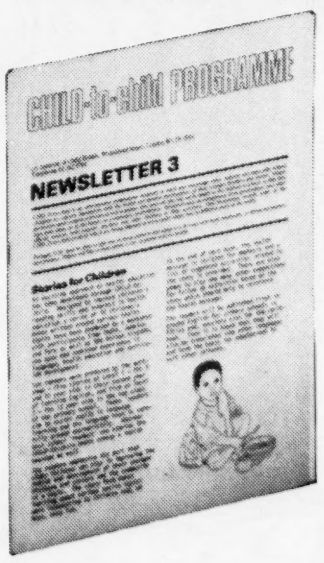
The projects in **CHILD-to-child** *involve children in very real and necessary activities for which an older child is particularly suited: infant care, diagnosis (and treatment) of common illness and malnutrition, games for younger children, care of the handicapped, education of other children (and the community) in basic nutrition, sanitation, etc.*

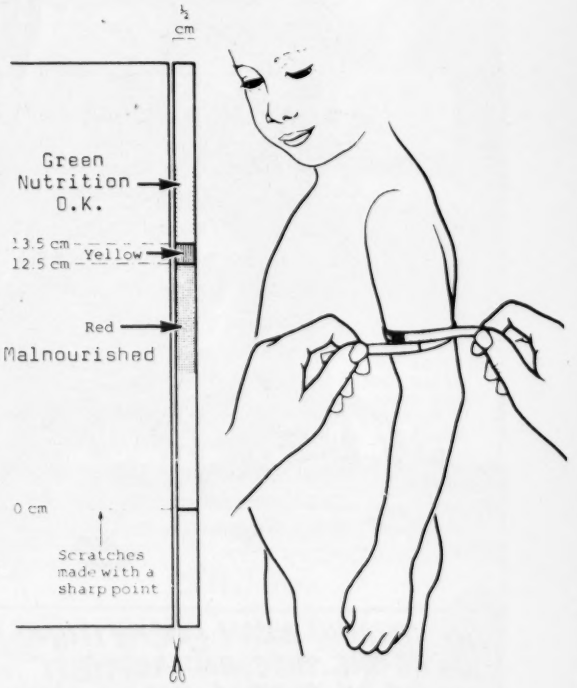
CHILD-to-child *puts into practice Herbert Kohl's "basic skills" (p. 124). The guiding principle is that with each step a child takes toward "adulthood," he or she assumes a corresponding measure of social responsibility and importance. The projects reported in the newsletter enable children to become valuable, effective members of community and family and encourage development at an early age of skills and knowledge necessary for survival and well-being.* **CHILD-to-child** *is designed for Third World countries, but there is just as great a need for such programs here. The* **CHILD-to-child Newsletter** *and Kohl's* **Basic Skills** *would be a good "tool kit" for initiating change in a local public school system.* —*Carol Van Strum*

CHILD-to-child
Programme Newsletter
Duncan Guthrie, Editor

free (4 issues/year)

from:
Institute of Child Health
30 Guilford Street
London WC1N 1EH
England





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One step towards overcoming malnutrition is to help communities measure malnutrition themselves. The Shakir strip described here in simple English is one way of doing this.

Measuring Malnutrition

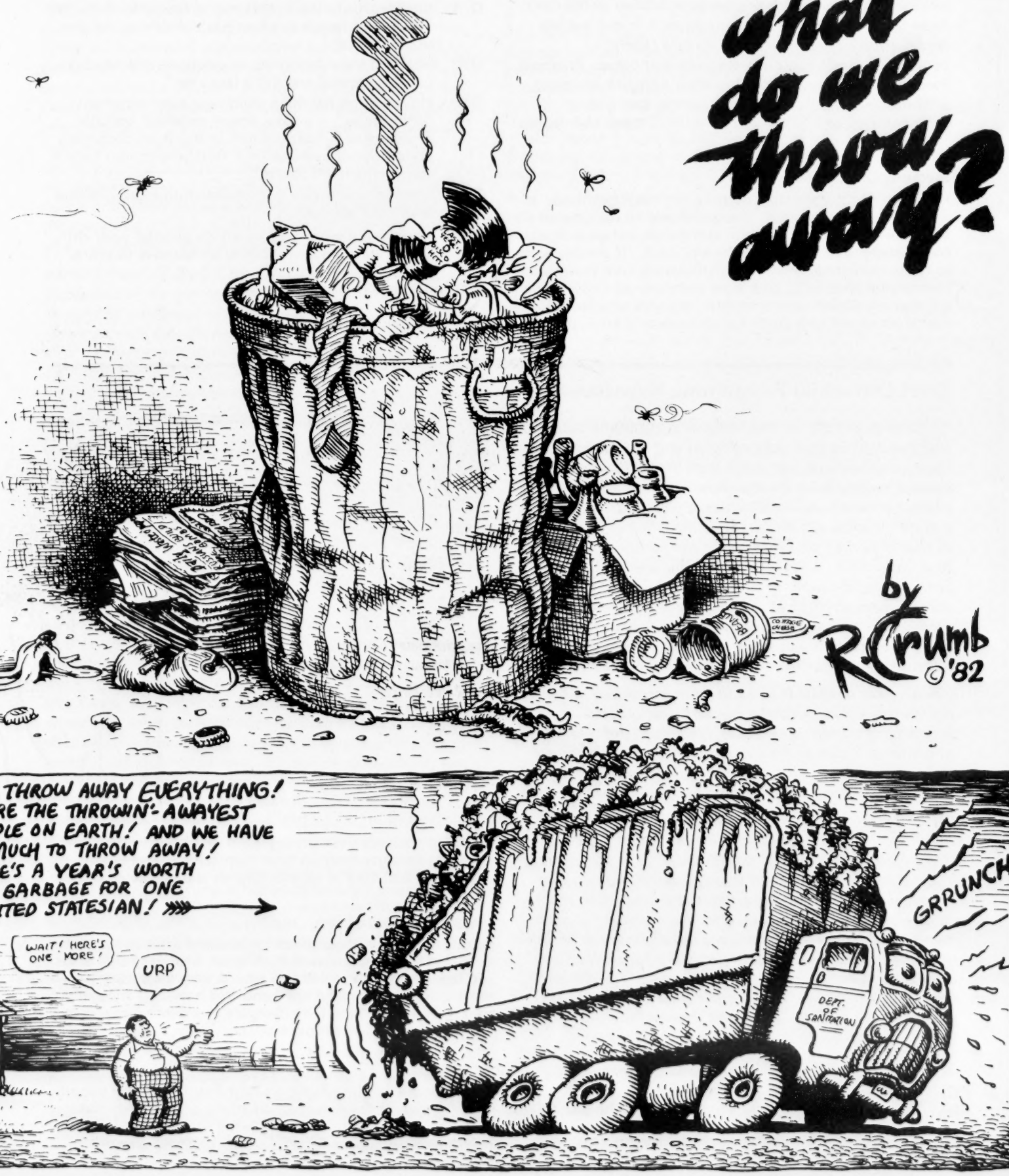
People living in villages often understand little about malnutrition but they know that children with very thin arms and legs have had too little to eat. A very good way to see if children with thin arms and legs have had enough of the right kind of food is to measure round the upper arm. The Shakir strip is a simple way to do this.

Making the Measurement

Tape measures are not always available and for many people understanding numbers is difficult. Instead people in many countries use a piece of string or a strip of material which does not stretch. Old x-ray film is very good. The illustration shows how to make it and how to use it on the child.

TRASH

what do we throw away?



JUST THINK, IF ALL TRASH COLLECTION SUDDENLY STOPPED.... PEOPLE WOULD JUST SIT IN THEIR STINK!

PEW

IT STINKS IN HERE...

BEER

CHIPS

STOLEN PIZZA

TV GUIDE

HO-HOS

DIET COLA

CHIPS

BUT WHY PICK ON ME!? IT'S NOT MY FAULT THAT ALL THIS CRAP IS MADE TO THROW AWAY! IT'S THESE BIG SHOTS THAT ARE RESPONSIBLE...

HEY, A GUY'S GOTTA EAT 'N' HAVE HIS BEER 'N' WHATNOT!

ALL THE WORLD LOVES A FATMAN

I GOT NOOZ F'YA, THAT POOR SLOB IS RIGHT! OUR GLUT OF GARBAGE IS THE DIRECT RESULT OF A CONSPIRACY, DON'T KID Y'SELF!!!

WHAT WE COULD USE RIGHT NOW IS A REALLY BIG WAR... THERE'S TOO MANY OF "THEM" ANYWAY!

NAH... OLD HAT... LET'S GET OFF THAT TRACK, J.B.... WE NEED FRESH IDEAS.

A.J. IS RIGHT.. BUT OUR MARKETS HAVE "PLATEAUD OUT"... WHERE DO WE GO FROM HERE?

WE HAVE TO GET COZY WITH THE RUSSIANS.. THEN WE CAN OPEN THEM UP TO OUR PRODUCTS... THIS'LL ENTAIL A MORE LIBERAL ADMINISTRATION IN WASHINGTON..

NO PROBLEM THERE, J.S...

CONTAINER INDUSTRY

PETRO-CHEMICALS

NON-SPECIFIC MULTI-NATIONAL CONGLOMERATE

PAPER COMPANIES

BANK BOARD CHAIRMAN

GLOBAL MARKET

BIG PLANS

I JUST LOVE TO DRAW THESE HEINOUS BUSINESS MEN! —R. CRUMB

BASICALLY MORE TRASH MEANS MORE PROFITS!

TRASH LEFT-OVER AFTER FAST-FOOD MEAL

BURGER KING

KETCHUP

AND BELIEVE IT OR NOT, THERE ARE STILL A FEW PLACES LEFT IN THE WORLD WHERE THERE'S NO SUCH THING AS "WASTE"!

LOOK, MY GOOD FRIEND, I'LL GIVE YOU THIS SHINY NEW PLASTIC CUP FOR THAT SHABBY OLD HAND-CARVED DOLL!

O.K.! YOU GOOD TO ME MR. BOSSMAN!

BOX 428 SAUSALITO CA 94966

IT'S NO WONDER THAT WHEN THIRD-WORLDERS MOVE TO THE "LAND OF PLENTY" THEY MUST LITTER!!

I DO NOT NEED THESE THING!

WHY ARE THOSE PEOPLE SUCH FILTHY BARBARIANS!?

BEFOULING OUR LOVELY TOWN!

GOOD CITIZENS BRAINWASHED BY "LITTER-BUG" PROPAGANDA

THEN ON THE OTHER HAND THERE ARE PEOPLE WHO SAVE EVERYTHING...

DON'T THROW AWAY THAT COTTAGE CHEESE CONTAINER! THOSE THINGS ARE GOOD FOR KEEPING LEFT-OVERS IN THE FRIDGE...

BUT... THE CUPBOARD'S FULL OF THESE DAMN THINGS ALREADY!

COTTAGE CHEESE

ONE WAY OR ANOTHER, THE INUNDATION OF TRASH HAS TO BE DEALT WITH.. THE AMOUNT OF PAPER ALONE IS STAGGERING...

GOTTA GET RID OF ALL THESE @★*!!! PAPERS!

ONE WEEK'S WORTH

NEATLY FOLDED PAPER BAGS

OLD MAGAZINES

WESTERN G'IMO SALE

"WASTE NOT, WANT NOT"...

WE'LL NEVER USE HALF OF THESE JARS AND BOTTLES BUT I HATE TO JUST THROW 'EM AWAY...

I DUNNO
I DUNNO

APPLES

RECYCLING CENTERS ARE BASICALLY A FORM OF THERAPY FOR PEOPLE OBSESSED BY GUILT ABOUT THROWING ALL THIS JUNK AWAY!

MUSIC TO MY EARS!

RECYCLING CENTER

SMASH
SHATTER
TINKLE

NOW THEY CAN ORGANIZE THE DELUGE OF GARBAGE INTO A SYSTEM THAT SEEMS RATIONAL. EVEN THOUGH IT'S VERY TIME-CONSUMING, AT LEAST THEY'RE IN CONTROL!

SUPPORT YOUR LOCAL CO-OP

SAVE THE WHALES

ALUMINUM CANS

TIN CANS

PLASTIC

CLEAR GLASS

BROWN GLASS

GREEN GLASS

WHAT THEY'RE REALLY DOING IS SUBSIDIZING A BUNCH OF LOUSY FOOD-PROCESSING, BEVERAGE AND CONTAINER CORPORATIONS!!

NOT ONLY HAS THERE BEEN A VAST INCREASE IN THE QUANTITY OF TRASH, BUT ALSO A DECLINE IN THE QUALITY... WHEN I WAS A KID IN THE 'FIFTIES WE USED TO FIND WONDERFUL THINGS IN TRASH-CANS AND DUMPS!

WOW! HEY, LOOK WHAT I FOUND!

WHAT!? WHAT!?

BOING

GLOM

BYER'S ICE CREAM

IN FACT, IT WAS BY PICKING IN BACK-ALLEY TRASH AFTER SCHOOL THAT WE GOT OUR REAL EDUCATION!

HUH! LOOKIT THIS OL' MAGAZINE!

PRETTY NEAT COVER!

GUY! THAT LOOKS REALLY OLD!

THERE'S A WHOLE STACK OF 'EM HERE!

MAILING STORIES

65

LOOKING BACK, IT SEEMS WE SHOULDN'T HAVE THROWN SOME THINGS AWAY, BUT THEN WE COULDN'T SAVE EVERYTHING! WE HAD TO KEEP THE WHEELS OF OUR MASS-PRODUCTION ECONOMY TURNING AT A FEVER PITCH!

OUF

ME! ME!

HURRY UP!

I'M NEXT!

SO WHAT IF A CULTURAL HERITAGE WAS LOST IN THE PROCESS... SO WHAT IF RESOURCES WERE MINDLESSLY SQUANDERED... SO WHAT IF MOM NATURE HAD TO BEAR THE BRUNT!

UNH! UNH!

CHEMICAL WASTES & OTHER POISONOUS BILGE

FUTURE GENERATIONS

DRINK UP MY PET.. HEH HEH HEH

GORP SLURP

SHE'LL HAVE THE LAST LAFF ON US!

TOXIOUS EFFLUVIUM

NUKEY WASTES

END

BOX 428 SAUSALITO CA 94966

UNCOMMON COURTESY REPORT

"School of Compassionate Skills" Begins

by Stewart Brand

IT'S WHO COMES to such classes that gets you. The people who come to "Street Saint Skills" are already street saints. The people who come to "Home Care Training" have already decided to personally replace the hospital for a relative or friend. Even if the instruction were neglible, the convening is already an encouragement. These were people I would have wanted to meet otherwise, but I would never have met them otherwise. They came from other neighborhoods.

To the "Street Saint Skills" weekend workshop, for example, came a gray panther lady full of warmth and vinegar, a San Francisco socialite (remembered for pulling a simulated rapist off his simulated victim by his real lips), an airline pilot, a cybernetics graduate student, a Zen monastery security officer who had waded into hundreds of bad scenes in the rough streets around his practice hall, a couple of community-center activists, and six black gents who keep the peace in one of the toughest street scenes going, "Drunk Park" in San Francisco.

I'd estimate that about 30% of the learning in all the Uncommon Courtesy courses happens *between* the students, in the interaction of their experience and their personalities. In the Street Saints course it was the Zen guy who had the detailed information on how to perform a citizen's arrest. It was the gray panther who had disarmed a half dozen menacing muggers by handing out bunches of flowers she'd just picked up backstage at the symphony. It was the Drunk Park staff who explained that in their world you don't intervene in a fight with your body but with your mouth, and you don't call the cops, ever – you call an ambulance. It was a student who had once driven by a curb-side murder-in-progress who provided the most effective of the several simulations we ran. We relived his experience as him, as murderer, as victim, as bystanders; played and replayed various courses of action he might have taken. By the end of the weekend he said that particular curse was lifted for him; he knew that next time he wouldn't drive by.

So far the instruction is as first rate as the students. "Welcome to Fire Season" (Rural and Suburban Firefighting) was taught by two rural fire chiefs, one the author of the best book on the subject (**Homestead Fire Prevention and Suppression**, **NWEC** p. 310) and the other the author of the "Community Fire and Emergency Medical Services" survey in **The Next Whole Earth Catalog**. We'll repeat the course next Spring. To the "Home Care Training" courses have come a dazzling team of experienced teachers and video material from Mount Zion Hospital and Medical Center, San Francisco. By the adroit use of gravity you really can move an inert person around in bed – raise their knees, then roll them over; get lower legs levering sideways off the bed, then sit them up.

CQ *publisher Stewart Brand, working with Suzanne Degen, is devoting half of his time to starting Uncommon Courtesy. The overall scheme was spelled out last issue. Reports and notice of forthcoming courses will continue in future issues.*
–Denny Do Good

In the Street Saints course, aikido has proved out as the most effective core of the instruction. Blending with a situation and then actively redirecting *its* force is the almost universal solution to street problems, both in principle and technique. Having a fifth-degree black-belt aikido instructor who's abundantly street savvy doesn't hurt – you get real authority transmitted through his charisma, centuries of Japanese conflict resolution experience. And it's fine pedagogy. The students are on their feet from the start, they learn immediately to perform a couple of miracles with their bodies and the rest of the course can build on that confidence.

From all of our courses I learned that when you're imparting a skill, don't let the students sit being lectured to or even discussing for more than half an hour at a time. Get up and get on with a demonstration, the more complete, full-throated, and realistic, the better. Marshall McLuhan said it: "It is experience, rather than understanding, that influences behavior."

We've lucked out on sites for all this. The day-long (plus) courses are borrowing the beach-side facilities of Yosemite Institute, which usually does environmental programs for teenagers. Their attentive staff, flexible lodging (170 beds), low cost, and great food have made a major difference. And for evening classes in San Francisco, Planetree Health Resource Center has all the attractions a small spiffy public medical library should have.

Financially, starting up such a school is not as much a drain as you might expect. With borrowed and rented facilities, the major expense is staff time, and that can be somewhat valved to (income-producing) demand. We're a few thousand in the hole; we're charging a little more for courses than we'd like (though right in the middle of standard fees, I notice). Once we develop a clientele and a steady traffic of courses the school should ease gently into the black. Robust expansion or risk-taking experiments or nonrevenue endeavors would probably require philanthropy from somewhere.

Courses that are well under way are "Home Care" and "Street Saints." We're doing our first "Local Politics" course in November, our first "Creative Philanthropy" conference in August (to be reported in some detail next issue). We're working up on "Real First Aid," looking for experienced, innovative instructors. And how to manage an "Uncommon Courtesy" seminar still eludes us. Will the appropriate radical courtesy instructor(s) please get in touch?

STEWART BRAND

Would-be Street Saints on a would-be bus. A drunk old lady is being harassed by four toughs. Each student walks into the situation, responds to it. Some of us were paralyzed. Here instructor Terry Dobson demonstrates intervening with your mouth – one of about 80 different kinds of intervention demonstrated (in some cases, invented) during the weekend.

Nice place for weekend workshops, the Golden Gate National Recreation Area. Yosemite Institute is in the old Army barracks at lower left, Golden Gate Bridge and San Francisco upper right.

STREET SAINT SKILLS

One-day intensive workshop

The opposite of helplessness is not just being safe but being helpful. Confronting the daily melodrama of American streets, nearly all of us feel the impulse to help – the crime victim, the accident victim, the passed-out drunk, the beleaguered cop, the publicly despairing – but we're uncertain whether to intervene and, more important, how to intervene. And we are well aware that so long as we feel powerless to help, the street is an alien place. When we do succeed in helping, the street is ours.

In the desert and at sea there is never such a question. If someone – anyone – is in trouble you automatically help, immediately and with all your capability. The streets could become like that, over a few years, if enough individuals decide to acquire the requisite skills and put them to use.

The course surveys a wide range of street situations which call for you to think on your feet. Using a blend of lecture, role-play, physical exercises, and discussion, you'll learn how to: spot trouble before it develops, think clearly in an emergency, act spontaneously and effectively, select appropriate responses, take control of a situation, be an effective witness, make a binding citizen's arrest, escape or evade unwanted attention, sound alarms and summon aid, restore order to a chaotic situation, take basic First Aid steps, let others know that there are "saints" on our streets – people willing and able to help other people out.

The chief instructor is TERRY DOBSON, co-author of **Safe and Alive** (1981, J.P. Tarcher), fifth-degree black-belt aikido instructor, former bar bouncer, former U.S. Marine. During the workshops he will be joined by other experienced instructors.

WHEN: 8 a.m. to 9 p.m., Saturday, **October 16, or November 20, or December 4**, 1982.

WHERE: Yosemite Institute, Fort Cronkhite, Golden Gate National Recreation Area (20 minutes from downtown San Francisco).

FEE: $50 (includes lunch, dinner, and snacks).

REGISTRATION: Enrollment is limited to 40 people. Registration deadlines are October 8, November 12, November 26.

UNCOMMON COURTESY

SCHOOL OF COMPASSIONATE SKILLS

LOCAL POLITICS

Evening Seminar Series

How to be useful in town, city, and county politics up to now has been a nonsubject. There are a few (not very good) books on how to run for local office, none on how to serve. Lobbying at the municipal level is treated as beneath activist concern. It's a curious oversight. If local politics attracted each community's best people, its best insight, that would remake the nation as no other political act could. Local politicians wield enormous power in our everyday lives.

Seminar leader PETER BEHR is an exemplar of local politics at its best. One of the few widely acknowledged "statesmen" in California, retired State Senator Behr began his political life at the age of 41 with four years on the Mill Valley City Council (pop. 10,000), and went on to serve seven years on the Marin County Board of Supervisors, and then eight years in the State Senate. Each of the four seminar evenings he will be joined by a guest with exceptional experience in each of the topic areas – the extent of local power; citizen lobbying; campaigning for office; serving in office.

(The series is for people active, or intending to be active, in local politics.)

WHEN: 8 p.m. to 10 p.m., Wednesday evenings, **November 10, 17, 24, December 1**, 1982.

WHERE: Yosemite Institute, Fort Cronkhite, Golden Gate National Recreation Area.

FEE: $25 for the series. Please register by November 5.

Home Care Training

Two-day intensive workshop (12 hours total)

Prolonged hospital treatment is expensive, lonely, and sometimes not particularly healing. With a bit of skill, treatment at home by family or friends can be the opposite. Expanding on the remarkable "Going Home" program of video tapes and manual developed at Mount Zion Hospital and Medical Center in San Francisco, this workshop provides the skill, with additional material and hands-on practice.

The instruction, led by SUZANNE DEGEN, includes participation by medical professionals with practical and teaching experience in nursing, physical therapy, social work, and hospice. ERNEST ROSENBAUM, M.D., developer of the "Going Home" program, will introduce the workshop. Since instruction will be tailored to meet the specific needs of the group, let us know when you register how you intend to use what you learn.

WHEN: 10 a.m. to 5 p.m., Saturday-Sunday, **September 25 and 26**, 1982.

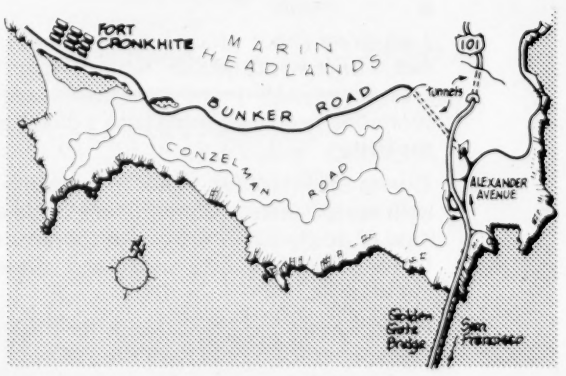
We are scheduling further "Home Care Training" courses. Write or phone us if you are interested. Also let us know if you prefer a weekend workshop or four evening sessions.

WHERE: Yosemite Institute, Fort Cronkhite, Golden Gate National Recreation Area.

FEE: $50 (includes morning snacks and lunches).

REGISTRATION: Maximum enrollment, 25 people. If you want lodging and additional meals, add $20 to cover overnight stay at Yosemite Institute and Saturday dinner and Sunday breakfast.

Co-sponsored by Uncommon Courtesy, Mount Zion Hospital and Medical Center, and Planetree Health Resource Center.



To sign up or request information, write
Uncommon Courtesy
Box 428
Sausalito, CA 94966
or phone (415) 332-6106, Suzanne Degen, Tuesday-Thursday, 10 am to 5 pm.

CRAFT

Fibre Facts

This basic guide to the structure and properties of fibers and yarns should be in the library of every fiber artist. It contains wise suggestions on how to choose yarn for weaving projects, how to calculate shrinkage, and how to finish and care for resulting products. It also contains an excellent discussion of the merits of natural vs. synthetic yarns. Even the most advanced weaver will learn something from this valuable, information-packed gem.
—Marilyn Green

Fibre Facts
Bette Hochberg
1981; 66 pp.

$6.95 postpaid from:
Bette Hochberg
333 Wilkes Circle
Santa Cruz, CA 95060

•

Wool varies from nearly round to oval.

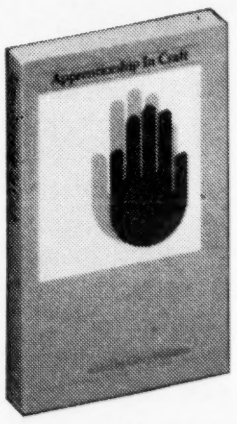
Silk is triangular with rounded corners.

Cotton shows the form of a collapsed tube.

Flax/linen is an irregular polygon.

Apprenticeship in Craft

Both craftspeople considering taking on apprentices and those thinking of apprenticing themselves to a master craftsperson to learn a craft should read this thoughtful book before taking another step. It will give you a sense of all that is involved in the apprentice-master relationship. Detailed information is given on the pros and cons of apprenticeships as well as on contracts, payments, work arrangements, evaluation, termination, and other facets of apprenticeships. The book is a series of musings by 45 craftspeople, administrators, and educators who have been personally involved in apprenticeships. It sounds like the truth. *—Marilyn Green*



Apprenticeship in Craft
Gerry Williams, Editor
1981; 215 pp.

$9.50 postpaid from:
Daniel Clark Books
Box 65
Goffstown, NH 03045

•

I am direct about what I have to offer in the way of studio time and materials. In fact, I once wrote lists of "what I expect" and "what I offer," to clarify these areas for myself. I now show these lists to prospective apprentices. I've lost a few promising people by using such a direct approach, but I'm convinced it was for the best.

During the interview, I look for maturity (which seems to have little correlation with age), a sense of commitment to clay, and motivation. I also look for some kind of positive chemistry. An apprentice becomes an important part of my life. I have to feel free to be myself and to work with someone who will fit into my my lifestyle.

Perhaps most important, I look for the ability to take initiative and solve problems. The apprentice should have the ability to function independently and add to the workings of the studio. He should be able to institute better ways of doing things. I always hope to learn as I teach, and I consider any new idea a "payoff."

•

There are some boys that you can take to a master, or to a saddle shop, and all you have to do is show them one time what to do and how to do it. A week later they remember. I was that way when I was an apprentice.

I was eighteen years of age when I first went to work with Ted Rushing in Childress, Texas. He didn't pay me anything, as I had inherited some money when my mother died. I room-and-boarded my own self and worked with him. That man never did have to show me but one time how to do a job, and the next time it came up I could do it. That is the kind of apprentice that I always wanted, but I never did find one. —Elbert Crone, bootmaker

BUSINESS

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COEVOLUTION Quarterly

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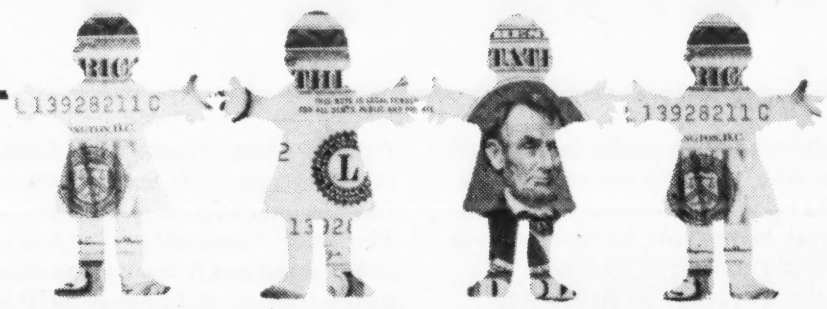

CoEvolution Quarterly — Summer 1982 Financial Report

EXPENSES	Feb, Mar, Apr	May, June, July
Salaries & Fees		
Office	$ 24,250.07	$ 22,565.90
Production	13,067.97	11,557.51
Editors	18,671.72	15,526.91
Contributors	6,935.00	6,742.00
Office rental, materials, etc.	16,492.02	16,006.30
Phone	2,057.66	2,017.04
Promotion	2,668.10	727.96
Printing	32,151.00 (42,000 copies)	29,458.13 (38,000 copies)
Subscription process & mail	14,651.57	11,841.06
Shipping	1,293.10	1,287.77
Business reply	391.00	800.00
Refunds	300.00	100.00
Other products (posters, maps, T-shirts, retail Whole Earth Catalogs)	9,535.49	164.17
Total	$142,464.70	$118,794.75
INCOME		
Subscriptions, gifts & renewals	$ 63,607.77	$ 66,993.93
Retaining, sustaining & maniacal	491.00	1,273.00
Back issues	1,936.75	1,724.50
Distribution	17,647.23	15,597.17
Other products (posters, maps, T-shirts, retail Whole Earth Catalogs)	11,391.93	6,339.72
Total	$ 95,074.68	$ 91,928.32
NET GAIN OR (LOSS)	**($ 47,390.02)**	**($ 26,866.43)**

POINT Financial Report

	May, June, July
CQ (see left)	
Income	$ 91,928.32
Expense	118,794.75
POINT	
Income	388.48
Expense	803.44
Uncommon Courtesy	
Income	2,735.00
Expense	7,349.37
Rental of Mailing List	
Income	552.00
Expense	657.74
Unclassified Ads	
Income	1,355.50
Expense	601.13
Chronicle Column	
Income	-0-
Expense	672.26
TOTALS	
INCOME	$ 96,959.30
EXPENSE	128,878.69
NET GAIN OR (LOSS)	**($ 31,919.39)**

POINT Balance Statement 31 July 1982

Assets	
Cash in bank	$ 4,875.52
Investments	46,428.54
Accounts Receivable	
Distributors	28,186.71
Mailing List Rentals	4,972.24
Inventory	
Back issues, **CQ**	69,708.00
Other products	8,255.22
Random House inventory of **NWEC** (33,597 @ $3.19 each)	107,174.43
Liabilities	
Accounts Payable	-0-
Subscriber Liability	268,632.00
Amount Payable to Random House for negative sales **NWEC**	151,946.09

Thank you

Maniacal Subscribers ($1000)

Bamboo Flying Water
New York, New York
Donna Boyd &
Gene Combs
Lexington, Kentucky
Marlon Brando
Beverly Hills, California
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Moretown, Vermont
Robert Dunn
Sparks, Nevada
Allan Hogle
Gualala, California
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Los Angeles, California
James E. Lovelock
Launceston, Cornwall
England
Douglas Martin
Sausalito California
Norman Pease
Orinda, California
Ron Pruitt
Davis, California
Katherine W. Tremaine
Santa Barbara,
California
Greg & Pat Williams
Gravel Switch,
Kentucky
and 5 anons

Sustaining Subscribers ($100)

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Lebanon, New Jersey
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Lancaster, California
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Kip Webster
Rochester, New York
Michael Williams
Coupeville, Washington
Scott Yamamoto
Hilo, Hawaii
and 2 anonums

**by virtue of returning payment for article*

The Retaining Subscriber list includes only those who became retainers since the last issue, as of 8/6/82. Retaining and Sustaining Subscribers get their magazine delivered first class (airmail) for a year. Maniacal Subscribers get CQ for life. The donation amounts are tax deductible.

Gossip

Stephanie Mills, editor of this issue and the Bioregions Issue (Winter '81 **CQ***) and* **CQ** *assistant editor for over two years, got an offer she couldn't refuse and didn't refuse it. As of September 1982 she is editor of* **California Tomorrow** *— a politically effective environmental/humanist journal formerly called* **Cry California** *($25/year, 4 issues, from California Tomorrow, 681 Market Street, Room 963, San Francisco, CA 94105). Her own shop. Praise, congratulations, and sniffles of joy and sorrow by cohorts left behind.*

Sheila Benson, who reviews good movies for **CQ** *and all kinds of movies for the Los Angeles* **Times**, *married one Herman Hong on August 28 and honeymooned at the Telluride Film Festival. Sounds more like honeymoonlighting. Dan O'Neill, fearless cartoonist and newspaper editor, was last seen running for city council in Nevada City, California. He was spared victory (six people were running for two seats), but with 31 percent of the vote he's a leading contender for 1984.*

Dick Fugett, **CQ** *general purpose clerk, pilot, beekeeper, and yogin, ascended to pilot heaven by flying his Cessna 140 in to the Oshkosh Fly-In in Wisconsin this summer, where half a million enthusiasts of experimental, home-built, vintage, and yes ultralight aircraft bugged one another's eyes for an astounding week. I'm steadily amazed there are no great books, films, TV specials, or even magazine articles about the utterly American annual phenomenon at Oshkosh. (How serious a pilot is Dick? This week he got up to 10,000 feet in his Gemini hang glider and lingered there amid cold and ferocious thermals for two hours. Nice view, he said.)*

Paul Hawken ran the first **CQ** *Unclassified ad last issue, offering $500 for a title for his forthcoming economics book. Out of the 175 responses — "The Naked and the Debt," "Why All Economists Are Wrong," etc. — one did the trick, sent by Larry Lee of San Francisco. In April 1983, Holt Rinehart is publishing 50,000 copies of Paul Hawken's* **The Next Economy**. *Also last issue I mentioned we were considering doing a weekly newspaper column. Suddenly we are. The San Francisco* **Chronicle**, *circulation 500,000, every Wednesday on page six in the news section is running half-page* **The Chronicle Whole Earth Catalog**. *It features material updated, condensed, and regrouped from* **The Next Whole Earth Catalog** *as well as new stuff from recent and forthcoming* **CQ***s such as Anne Herbert's "Honest Hope" in this issue. Joe Kane is managing editor of the feature. It brings in $400 a week. We're delighted. We'd like to syndicate it to other papers. Got any candidates?*

And now a serious question. Do you have pen, paper, and a stamp ready? I am contemplating running **CoEvolution** *in two forms — Regular and Bold. "Bold" would have everything now in the magazine and somewhat more than the usual 144 pages. "Regular" would be the same only without potentially offensive pieces such as "Texas Crude" and R. Crumb's "Trash" in this issue, "Feminism and Sadomasochism" and "The Day They Tested the Rec Room" in recent issues. Both editions would cost the same as now — $14/year.*

The question is, are there people you would like to gift with **CoEvolution** *or encourage to subscribe if a "Regular" edition were available?*

Argument follows, ethical issue first. Readers have changed my mind on this one. First I have to acknowledge that a large number of readers are

The Chronicle Whole Earth Catalog

A compendium of useful ideas and things. Edited by Stewart Brand and Joe Kane

© 1982 by Point

The Indispensable Problem-solving Tools

Gaffer's tape, WD-40, and a Swiss Army knife are civilization's gift for solving civilization's problems, at least the daily physical aggravating ones. These are the tools you must have with you if you want to get home.

Exhaust pipe falling off? Lash it up with gaffer's tape. Keys locked in the trunk? Break in via the rear-window shelf with your Swiss Army knife. Door lock clogged? Radiator fan binding? Hit 'em with WD-40. Spring poking out of your office chair? Patch it with gaffer's tape. Swivel squeaking? WD-40. Wheel falling off? Typewriter jammed? Splinter? Swiss Army knife.

Why don't you hear more about these wonders? Because they're as cheap as matches, as salt, as aspirin. Gaffer's tape costs $13.50 for a 60-yard roll, a year's supply. WD-40 costs $1.50 a can. The most elaborate Swiss Army knife alive costs $48.

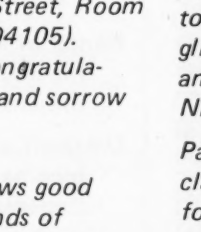
— SB

Duct Tape/Gaffer's Tape

Miraculous, all-purpose fix-it material. No cruising sailor, for example, would risk leaving port without the stuff because most boat emergencies respond quickest to "duck tape" treatment — torn sails, sharp edges needing padding, something that needs to be attached *now, there* to a wall, to a stay, or to itself.

Both duct tape and gaffer's tape are about two inches wide, waterproof, gray usually, *very* sticky but easily removed, strong but you can tear off a hunk with your fingers.

Duct tape originally was developed for sealing air-conditioning ducts. It is cheaper than gaffer's tape, more likely to sunrot and/or stick unremovably after a while. [**A 2-inch by 60-yard roll is available at most hardware stores for approximately $7.**]



A roll of Arno Tape (left, duct tape) and Stagestik (gaffer's tape) holding themselves up to a window

Gaffer's tape (a gaffer is the chief electrician on a film shoot, who uses the tape to hold *everything* temporarily in place) costs more and is worth more. [**Check your local theatrical supplies outlet. Phoebus, at 145 Bluxome Street, San Francisco, sells a 2-inch by 60-yard roll for $13.50. The same can be had by mail for $15 postpaid from Mutual Hardware Corporation, 5-45 49th Avenue, Long Island City, N.Y. 11101. Specify Number 2181.**] — SB

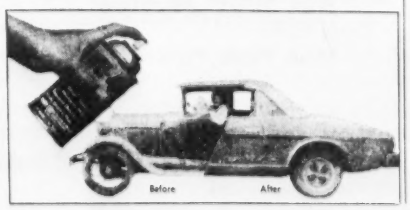
WD-40

The universal lubricant. If something is stuck, or squeaking, or rusting, you point this spray can at it, go *pshhht*, and the problem disappears. It even drives water out of electrical circuits.

(There I was, dependent at sea on a two-cylinder gas engine perpetually redrenched with seawater and laboring hideously on one cylinder. I pointed the WD-40 can in the general direction of the spark plugs, went *pshhht*, and the engine purred into robust life and threatened me with that particular problem never again.)

It's especially good at freeing stuck bolts and such. No one knows what the secret ingredient is, but WD-40 can be used nearly anywhere without fear of it attacking rubber, paint, fabric, etc.

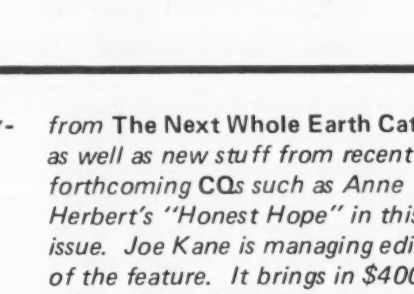
For around the house, office or car, a can is fine. If you're using a lot of the stuff it's decidedly worth it to buy in gallon bulk. Brookstone [**127 Vose Farm Road, Peterborough, N.H. 03458**] has a nice spray pump [**Number F-7382, $25.40 postpaid**]. Most places that sell tools sell WD-40 for about $1.50 per can. —SB.



Swiss Army Officer's Knife

Mine is employed at least six times a day, and I'm a wimpy office worker. It's a "Champion," top of the line; every one of its 16 blades gets used at least once a month. Most minor repairs jobs — on a house, a 30-foot boat, or my shoes — are well within its scope.

When "Soft Path" activist Amory Lovins got married in the woods with 50 revelers, he and his bride, Hunter, gave each other beautiful hunting knives that could gut a bear but could not open their wedding wine — my Swiss Army knife did that.



My favorite conceptual blade is the magnifying glass, which allows microsurgery when using the tweezers on an elusive splinter (but alas is not big enough to start a fire).

Get only Victorinox — they're available in most good hardware stores. [**Or by mail order from Eastern Mountain Sports, Vose Farm Road, Peterborough, N.H. 03458. Knives are $12.50 to $48 postpaid. Sheaths, described further on, are $7.50 postpaid.**]

All other similarly red multi-bladed knives, including Wenger, are imitations of varying degrees of quality.

The Victorinox knives come with a lifetime warranty and act like it.

If you wear a belt, I strongly recommend getting a sheath (sometimes called a pouch) for your knife — note that the supplier we're giving here because of their fair range and good prices. EMS has three different-sized sheaths.

With a sheath you don't lose the knife, and it's one deft move to get the tool in your hand.

Somewhat lower costs on Victorinox knives than from EMS ($39 versus $48 for the "Champion") may be found in the Thos. D. Robinson catalog [**free from Thos. D. Robinson and Son, Ltd., 321 Central Avenue, White Plains, N.Y. 10606**], but they don't carry sheaths. —SB

Reader's Digest Fix-It-Yourself Manual

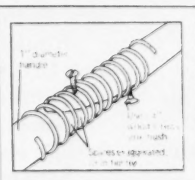
Say what you will about the **Reader's Digest**, you're going to have to admit that they do a great manual. Their **Complete Do-It-Yourself Manual**, which dealt mostly with the house itself and its various components, set a standard for such books that has not been surpassed in eight years, and I expect that this one will do the same.

With it at your side, nearly anyone can undertake the repair of just about any object found in a typical USA household. If you don't know about tools, the book tells you what they are and how to use them, and does it without a trace of male chauvinism.

The range of subjects covered is remarkable — everything from tightening loose rungs in the kitchen stool to whipping that rusty Coleman stove back into shape. Only in a very few places (auto repair) does the dreaded oversimplification appear, and then only briefly.

The text is terse and the illustrations are superior in every way. In fact, the entire book is superior in every way; it's by far the best available. [1977, 480 pp.; $19.95 postpaid from Book Department, **Reader's Digest, Pleasantville, N.Y. 11570, or from the Whole Earth Household Store, Fort Mason Center, Building D, San Francisco, Calif. 94123; 441-7250.**]

— J. Baldwin



How to Fix A Broken Handle

Glue a long splint with epoxy adhesive. Add short wood screws to thick handles, as shown. Soak heavy twine in adhesive and wrap it around handle for added strength.

THE RISING SUN
NEIGHBORHOOD NEWSLETTER

By Anne Herbert

"Chromium plate the Golden Gate! Make it shiny now!"
— David Wills' chant for all marches.

David often sketches people in buses and other public places and gives them the sketches. He's noticed that poor people expect to pay for it and most rich people expect to get it free.

Keep an open mind. Keep an opening in your mind. What if the next great idea comes and we're all watching TV or listening to the latest album.

genuinely offended by some material we run, and I usually know beforehand which material it will be, so the offense is gratuitous. Many readers who love and use most of the rest of what we print are not usefully informed or improved by the offensive stuff. Instead they are angered and they go away. If we say the article on sadomasochism is really good, they reply there is no such thing as a good article on sadomasochism. Impasse.*

My mother, 76, Vassar graduate, lives in Rockford, Illinois, avidly supports **CoEvolution**. *She detests R. Crumb, knows as soon as she sees a line of his drawing that he is going to park a flaming bag of dogshit on her doorstep, ring the doorbell, and flee. "Yeah," I say, in effect, "but look at his honesty and verve." "I do not question the art," Mom replies in effect, "I question the content."*

Subscribing to a magazine (or receiving a gift subscription) is not the same as buying a book. The book exists to be sampled, the buyer can beware before buying. A magazine subscription is more like billboards or broadcast radio and television; the customer is captive, and an uninvited offense is a real invasion. **CQ** *comes on all wholesome with its do-good articles and environmentalism and access-to-tools reviews, and then it slips in the leather ladies.*

Except for "On Farting" in the last issue. I was a bit worried about it. Most readers just loved it, xeroxed it, read it aloud. I still don't know whether I'd run it in a "Regular"* **CQ.

Why are we surprised when it goes over like a fart in church? It is a fart in church.

The problem (advantage to some) is that **CQ** *is somewhat cross-purposed. One-third of the magazine is ongoing Whole Earth Catalog — service. Most of the articles are aimed at world-improving — service. And then we come to our "anything goes" feature, which some interpret as passé '60s tastelessness and some as provincial Marin County tastelessness and some as publishing courage of high degree. I think it's important and its importance may be increasing in this cowardly decade. Good stuff, sometimes valuable stuff, does not get printed elsewhere because magazines with advertising are afraid of it (justifiably, by the way). We relish being publisher of last resort and feel that too is a service. For some, sometimes, it is a dis-service.*

It comes to this. I don't want to publish in fear of readers; I do want there to be a magazine which can publish, potentially, anything. If that's to be truncated, I want it to be at least in part the choice and responsibility of the reader. The same goes for the self-chosen reader of the Bold edition. We are already a readers' magazine. Two editions could be a form of deepening that.

On to the financial angle. **CQ** *as a strictly service magazine, the Regular edition, might have a circulation twice or more what our present filthy rag has, which would be good for all of us — contributors, distributors, staff, and readers of both flavors. It would be a nuisance, possibly an expensive bloody nuisance, to put out two editions. The prospect is highly unpopular in our office. That's why we need to hear if you would in fact give a "Regular"* **CoEvolution** *to some friends/relatives that you don't bother with the current "Bold"* **CoEvolution**. *Most new subscriptions come from gifts. Rising circulation for a change would be highly popular around here.*

Optional last paragraph. How many Californians does it take to screw in a lightbulb? Answer: Californians don't screw in lightbulbs; they screw in hot tubs. —*Stewart Brand*

"Or Whole Earth Household Store"

That phrase under access information in the **CoEvolution Quarterly** means you can mail order the item from:

Whole Earth Household Store
Fort Mason Center
San Francisco, CA 94123

All orders: Add $2 packaging and delivery per order.

Rush orders U.P.S. (Continental U.S.): 40 cents additional charge per book.

Foreign orders (surface mail): 50 cents additional postage per book past the first two. International Registry Insurance (add $3 per order) is recommended. Payment only in U.S. funds drawn on a U.S. bank.
California delivery: Add 6% tax (BART counties 6½%).
VISA/MasterCard orders accepted.
Telephone (415) 441-7250.
Do not send Household Store orders to **CoEvolution Quarterly**.

Pretty typical letters

Sorry Folks, but I won't be renewing. I was going to chuck it into the wastebasket (your renewal notice) but thought you might be interested in my reason.

Your magazine is often very stimulating but some articles I have found rather disgusting, some stuff too smart-ass. It's just not a magazine I would care to leave around my home. Several people have told you this already and it doesn't seem to make any difference to the content. I had hoped things might be looking up after some of those good letters on pornography. If someone digs it, I suppose it's their thing and all that. But you're dealing with an issue which is quite different from ham radio, which may interest some and not others. To me, it's encouraging to know that there are people reading your magazine who still have sensibilities that can be offended. I was cheering on the people who didn't like Crumb's cover with the swastika. It's not only the sheer ugliness of the cover (although it sure was ugly). It's this idea that we're all going to Hell in a handbasket, what Reagan calls the prophets of doom and gloom — and isn't it amazing to find oneself on *his* side. No, I'm not saying sweep it all under the rug, hide it away somewhere so we can just see the beauty of the earth and of humanity. Just balance it, let's have some living solutions and less moaning. More about that Frenchman who planted trees in the south of France and less horror and shock. Seems like we're so hard to shock anymore that the means have to become more blatant.

So long,
Hector Black
Cookeville, Tennessee

Dear **CQ**,

Reading Pat Califia's article ["Feminism and Sadomasochism," Spring '82 **CQ**] was an event; I first refused it, gagged on it, until finally it devoured me. Curiosity perservered through the void of ignorance (but I covered the pictures to avoid embarassing questions). Enlightened on a subject I never actively pursued, I experienced frustrated rage and sympathy.

My reactions are mixed; **CQ** is staying open and aware (not all of us are); it is a glint of a small, unknown world written in an honest, intelligent style; and it repulses me for defying all the moral answers I have been so content with these 25 years.

I wanted to write a morality essay responding with "How Healthy Heteros Heal the Heats." But that was not the point methinks in my enraptured meditation. I want to thank both Pat and **CQ** for shaking up my purity when it was getting so rigid.

Still Quivering,
E. Allen
Clinton, Maryland

How to Submit Things to the CoEvolution Quarterly

1. Send them. *Address them to Box 428, Sausalito, CA 94966 and drop them in the mail. We are sitting here, being bored as anyone else, reading all the mail, hoping some of it will be good.*

What's good? New, not read a hundred times before, not an imitation of old **CQ** *articles, often a personal passionate statement. Articles that sound like articles are often dead. Consider yourself to be writing a letter to an intelligent, uninformed friend about something that is interesting/important to you. We often print things that everyone, including the author, thought were too odd to be printed anywhere. Remember that we print all lengths from a paragraph to many pages, so don't puff a good, short idea into four tedious pages. And please don't try to please us by creating something you think we'll like. Being hustled is boring. We'd rather print true love — yours for your subject.*

All things are possible and may be printed. We have no editorial policy for or against any subject matter.

2. Enclose a stamped, self-addressed envelope. *That's courtesy. You are much better at writing your address than we — all that practice. If you don't address and stamp an envelope for us to reply or return things in, you're asking someone else to be your secretary. If we all did our own clerical work, there would be no secretaries.*

3. Keep a copy. *We are careful and good but not perfect. You should never send anyone the only copy of anything.*

4. Be sort of patient. *We often reply on stuff the day we get it, but you shouldn't get worried about no reply for about a month. Sometimes we have to show things to our far-flung, part-time editors, and that takes a while. On the other hand, don't wait a year to tell us you sent something and didn't get an answer. Many manuscripts have flowed over the desk in that time, and it will be hard to remember what happened to yours or if we ever saw it.*

5. Be legible and put your name, address, and phone number on the first page of the manuscript. *Those are all the rules of form we have. It's helpful to type if you have a typewriter, and doublespace, but handwriting is fine if it's neat. The name and address are so you don't become a mystery person if your envelope gets separated from your manuscript.*

6. Avoid query letters. *Query letters are what writer's magazines tell you to send editors to find out if they are interested in a subject. We're less interested in the subject*

PHIL GARNER

The Next Whole Earth Catalog Access Update

Since we can't afford to answer inquiries any more, and since we're not doing another **Catalog** *edition this year, it seemed that news of the most pressing* **NWEC** *availability changes and answers to the most commonly asked questions would be useful.*

A lot of readers have been unable to find the **Fine Hardwoods Selectorama** *(p. 249), a guide to 75 different types of wood, because we listed the wrong address two years in a row. It's $7 postpaid from the Fine Hardwoods/American Walnut Association, 5603 West Raymond Street, Suite O, Indianapolis, IN 46241. There's also a new address for the Mid-States Wool Growers Co-op, whose Livestock Supplies catalog (p. 114) covers everything from antibiotics to sheep clippers. It's free from 125 East 10th Avenue, South Hutchinson, KS 67505. David Bainbridge's Passive Solar Institute, publishers of* **The Integral Passive Solar Water Heater Book** *(Spring 1982* **CQ**, *p.107) and the* **Passive** *etc.* **Catalog** *(***NWEC** *p. 188), has moved from Davis, California to P.O. Box 722, Bascom, Ohio 44809.*

The publishers of the **Sex Atlas**, *reviewed on p. 341 of the Second Edition for its "warm, revealing photos of human intimacy," have dropped two-thirds of the pictures in their second printing. There's no change in the text. A publicity rep said, "The book was originally aimed at professionals. This new edition is for family and school use, and they wanted it to be appropriate." To make the deal even more sour, they raised the price from $10.95 to $25.*

The authoritative woodworking guide that includes coppiced wood, **Woodland Crafts of Britain** *(p. 250), is now out of print. But* **Backyard Livestock** *(p. 111), a manual for raising small stock in small spaces, is back in print at $8.95 postpaid from The Countryman Press, Woodstock, VT 05091 or Whole Earth Household Store. The beautifully illustrated and comprehensive* **Oxford Book of Food Plants** *(p. 102) is also back in print; $22.50 postpaid from Oxford University Press, 16-00 Pollitt Drive, Fair Lawn, NJ 07410 or Whole Earth Household Store.*

CQ *contributor Rosemary Menninger wrote us that the* **People's Guide to Backpacking, Boating and Camping in Mexico** *(Spring 1982* **CQ**, *p. 112) is already more than 50 percent outdated, according to a friend of hers just returned to the states. "The reason is that Mexico is not as eager to have American tourists, particularly low-budget ones, as in the past, and it has closed many of its campgrounds. Relying on that book could get a person stranded in some remote and unfriendly places."*

We got a frantic letter from the Yaesu Electronics Corporation, makers of the best shortwave-radio console sets (p. 524), saying that the two models we said were being discontinued — the FRG-7700 and the FRG-7 — are both still in production and "the mainstays of our product line."

*The Mani Trading Company, sellers of non-Christian religious items (p. 588), is now out of business because a fire burned down the proprietor's house and office. Rapel Products, makers of the rancid-smelling Rapel Rape Deterrent (***CQ** *Winter '81, p. 136) have moved to 12113 Roxie Street, Round Rock, TX 78664. Finally, Tom Parsons (see p. 34, this issue) told us that EROS satellite data imagery prices (from* **NWEC** *p. 25) are going up fantastically this October. A 2¼-square-inch-negative from Landsat, for instance is going from $6 to $35. If you're thinking of ordering Landsat pictures, do it soon.* —*Art Kleiner*

than in what you do with it. If at all possible, please send us the manuscript.

Exception: You have found an interesting and complex subject that would take a lot of time and work to write about. If you want to know if **CQ** *might be interested before proceeding, write a detailed, fact-filled letter about what you know and what you want to do, and send samples of your writing. The details and the samples might make it possible for us to make an intelligent reply. But in every case, it's better to send a manuscript than a query. Naked queries from people we don't know yet just make us anxious.*

7. Notes on book reviews. *Write to that smart ignorant friend, introduce the book, and get out of the way. A paragraph is usually enough. The quotes are the thing — ideally they should be immediately useful and contain the soul of the book. You don't have to type the quotes; just note the page numbers. It's not necessary to analyze the book; say exactly why you love it.*

We like to review books of all ages, especially unheard of wonders that got lost in some shuffle.

The way we respond to submitted book reviews is different than the way we respond to articles — different and slower. If you submit a review, we will tell you fairly quickly if the review seems interesting to us or not. But we don't decide about printing it until we've seen the book, which we order from the publisher, who may take a couple of months to send it. (Don't you send your copy of the book unless you don't want it back.)

Because of the delay in getting books from publishers, you will get the final verdict on printing your review slowly if it's yes, and never if it's no. The yes verdict will come in the form of seeing your review in **CQ** *and receiving a check. The no verdict will come, alas, in the form of silence. After a year, no news is bad news. Unfortunately, we don't have enough people to write to you again to tell you your review wasn't used because we didn't like the book.*

8. Money. *$15 to $30 for letters and $150 to $300 for articles. The article money varies depending on length, wonderfulness and provision of illustrations. Item reviews work like this — you get $15 for being the first to suggest an item and $15 for reviewing it. If you do both, you get $30. You get paid on publication.*

9. Will you still love us if we reject your offering? *Editing is arbitrary. It's hard to explain why any given piece is rejected. To understand that, picture yourself leafing through a magazine, not liking an article, and suddenly being confronted by the author who wants you to explain why you didn't like the article. A cogent explanation would be somewhere between awkward and impossible and definitely time consuming. Our rejection notes tend to be short. It has to be that way if we're to have time to read all the mail carefully. If we turn down your piece, we may not convey in the note that we are grateful for all mail, that mail is all we've got, that the magazine would not exist if it weren't for mail from strangers who are good enough to share the wonders of their world with us.*

We're waiting to hear from you.

—Anne Herbert for the **CQ** *staff*

P.S. I wrote this several years ago when I was assistant editor, but it seems to be, after a few revisions, still true. Send your good writing to Stewart Brand or Richard Nilsen.

UNCLASSIFIEDS

The UNCLASSIFIEDS are a reader-to-reader service suggested by **CQ** reader John Benecki (Summer '82 **CQ**). Available to subscribers only, the UNCLASSIFIEDS are envisioned as a cheap communications network for **CQ** readers (not to mention a financial boon to us).

TO ADVERTISE:

1. You must be a current subscriber. Please send a recent mailing label when you send in ad copy. You may subscribe when you place your ad (see below).
2. No display ads for now, just copy. The first few words in your ad will be in all capital letters. (We cannot do words within ads this way — it takes up twice the space.)
3. Rates are 30 cents a word. You count them and send us payment with copy.
4. We will not bill. Payment must accompany copy.
5. Your address must be included in ad copy. We will not forward replies.
6. Sorry, we will not take ads over the phone.
7. Deadlines are two months before publication date. The next deadline is October 21 for the Winter '82 issue. Deadline for Spring '83 issue is January 21. Deadlines are final and will not be extended.

We print ads in the order received. "UNCLASSIFIEDS" — no categories. **CQ** subscription rates are $14/year ($17/year foreign and Canada). Please add this amount to your payment if you are not currently a subscriber. Order forms for subscriptions are at the back of this magazine. Mail ad and payment (made out to **CoEvolution Quarterly**) to:

Annette LaBette
CQ UNCLASSIFIEDS
P.O. Box 428
Sausalito, CA 94966

WANT TO TAKE MORE RESPONSibility for your own health? We can help. We're "Medical Self-Care," the quarterly magazine of access to health tools (see NWEC p. 322), edited by CQ's Medical Editor, Tom Ferguson, M.D. Subscriptions are $15 per year ($12 for students), sample issue $3, information free from: "Medical Self-Care," P.O. Box 817-T, Inverness, CA 94937.

THE ULTIMATE SURVIVAL food! Best food available for everyday and emergency use. The "manna" of the bible! As low as $220.00/person/year. Info $1.00. Hi-Desert Pollen Company, 3025 West Mariposa Dr., Phoenix, Arizona, (602) 246-2386. Distributors wanted.

"THE SUN tries to print the truth. Not the news or the latest, but the Truth, Mr. Truth, the Queen of All Our Dreams. And it does." That's CQ's Anne Herbert, reviewing The Sun, a Magazine of Ideas. Subscriptions are $15 a year (12 issues) from The Sun, 412 West Rosemary Street, Chapel Hill, N.C. 27514. Contributors include Ram Dass, Robert Bly, Hugh Prather, Patricia Sun, and many "unknowns" worth knowing.

ALUMINUM CAN CRUSHER under $20. Makes can crushing easy. Free information. Minden Desk E, Box 861, Redwood City, CA 94064.

LAUREL HILL, A 1450-ACRE cooperative organic farm community with a broad resource base, is looking for new members experienced in growing, fixing and building. We are committed to developing a diversified self-sustaining agricultural resource center for the Southeast, free from violence, sexism, racism, and ideological dogma. Embryonic long-term plans include cottage industry, foodcraft, a learning center, and a community land trust. Shelter, food, idealist's income and sharing of crops, tools & decisions offered. Send SASE and letter about yourself, your experiences and goals to Laurel Hill, Rte 3, Box 191-B, Natchez, Mississippi 39120 ((601) 445-9760).

HONEYBEE PRODUCTS (bee pollen, honey, & beeswax candles) from high altitude Rocky Mountain environment. Save money and buy direct from the beekeeper. Be assured of superior quality and pesticide-free products. Write for brochure and prices: Hampton's Honey Farm, Tetonia, Idaho 83452.

WHAT DO TEACHERS, PREACHers, lawyers, judges, joggers, police officers, peace activists, funeral directors, politicians, magazine publishers, game designers often have in common? You say, a missing funnybone? And dead serious? Here's your chance to help reverse that. For more laughter, fun, sillyness and better health in your life, write for our free catalog listing our fun-filled cooperative boardgames. Animal Town Game Co., PO Box 2002A, Santa Barbara, CA 93120. Woody Allen once said, "Most of the time I don't have much fun. The rest of the time I don't have any fun at all." If you have serious doubts about this ad, read Broom-Hilda 6-27-82!

SOFTSHOES. CUSTOM MADE TO each of your feet in heavy, very soft, supple leathers. They are resoleable for years of service, and are super comfortable. Boots too. From $75. For info: Softshoes, 2535 NE 13th, Portland OR 97212.

EDITOR/WRITER: Interests in Jungian and Dharmic psychology; storytelling; the proofs of physics and the paths of knowing; therapeutic metaphors. Well-practiced. Lamont Ingalls, 8307 Panola St., New Orleans, LA 70118, (504)866-3510.

IS THERE A MICRO IN YOUR future? Is there a future in micros? Want to create your own SPIN? (SPecial Interest Network) Find out more about telecommunications, networks, microcomputer hardware and software, and the latest brain scans from Robert Anton Wilson.* $2 gets you an info pack. $15 gets you a subscription to: "Trajectories," a print transmission from the institute for the Study of the Human Future, Inc., 2000 Center Street, Ste. 1362, Berkeley, CA 94704. Or, use your own micro & modern and dial: 415-861-6489 . . .Hit "return" or "enter" twice after connect for operating instructions. *Science fact/fiction writer; author of "Illuminatus!"; co-founder of ISHF.

FIFTY ACRE FAMILY RETREAT on Mount Desert, Maine: meadows, fresh and salt water for swimming, a house, a cottage and a shore cabin, including a grass tennis court and 30 acres of woods and trails. Room for children, grand children and guests. Owner will consider offer for all (in high six figures) or major part. Write or phone Maxine Clark, Realtor, Southwest Harbor, Maine 04679 (207-244-5442).

NATIVE AMERICAN POETRY and Prose, a comprehensive mail order list of contemporary titles and authors, from presses small and large, including our own Blackberry titles by Peter Blue Cloud. Please send stamps. We are also looking for titles to add to the list. Gary Lawless/Blackberry, PO Box 186, Brunswick, Maine 04011.

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FREEZE PROTECTION SYSTEM for thermosyphon solar water heaters is now available. Totally passive, build it yourself from simple parts. No electricity, not mechanical, so will not fail. Plans available for $9.00 from Bob Stayton, PO Box 3021, Santa Cruz CA 95063.

COMMUNITY ENERGY SELFreliance. Energy Future Santa Cruz is a community energy planning project that involved over 3,000 people in developing a comprehensive community plan for local action on energy conservation and renewable resources. Emphasis on returning energy dollars back to the local economy for job and business development. Complete package includes the Energy Plan (100 pages), How We Did It, and an illustrated story of what it will be like in the future if the plan is carried out. Send $25.00 to Energy Future Santa Cruz, PO Box 3021, Santa Cruz, CA 95063.

12 MONTH BIORHYTHM CALENdar. Because of it's unique format the personalized biorhythm calendar is the most usable on the market. Your calendar will start at the month your order is received, unless otherwise instructed. Send name, return address, birthdate and $5 to: S & S Systems, 21050 Bear Creek Rd., Los Gatos, CA 95030. You'll be glad you did!

FLUTE BOOKS. " How to Love Your Flute," $7. Comprehensive guide, flutes, flute playing. Includes minor repairs, playing by ear, bamboo. Preface by Paul Horn. "This book inspires." — WEC, P. 477. "Bamboo Flutecraft," $3. "Flute Overhaul," $3. Mark Shepard, 1720-C Bird, McKinleyville, CA 95521. Add $1 shipping.

HOW TO STOP A WESTINGHOUSE nuke — It is extremely difficult to stop a nuke when it is more than half complete, but Westinghouse nukes have shakey steam generators. Also, here in Illinois, we have more than our fair share. These two reasons, plus the fact that our utility is going bankrupt, gives SAFE a good chance at stopping this nuke, legally. We need help presenting a credible legal intervention. SAFE, 326 No. Avon, Rockford IL 61103.

NEW BUMPER STICKERS: Fire Art Kleiner. Box 111, Fulford Harbour, B.C. CANADA.

"MAN'S PASSION TO COMMUNIcate and to receive communications seems as central to his success as a species as the fin was to the fish..." —David Attenborough in "Life On Earth." EarthWorks — A Self-sufficiency Bookstore with discount prices — 20% off list. Examples from Summer 82 CoEvolution: Stonebuilder's Primer ($12.45 list) only $9.95, Solarizing Your Present Home ($24.95 list) only $19.95, Complete Book of Edible Landscaping ($16.70 list) only $13.35, Nature's Design ($21.95 list) only $17.55, and so on. Most books available. Free brochure. Add $1.25/title (plus 5% in Md.). EarthWorks/C, 8135 Ball Rd., Frederick, MD 21701.

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NEW HAMPSHIRE: HOLISTIC Health Counseling. Yoga. Biofeedback. Meditation. I'm in the Monadnock Region. Hi! Who else is Co-Evolving around here? Lonny J. Brown. Old Mountain Road, Greenfield, NH 03047.

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FIRST NIGHT ABED WITH CQ, quarterly, leaves one thing 2B desired: hardy, experienced, succinct man with wild sense of humor near me, who relishes both quiet and good times, has no use for astrology, smoking, posh living. Small, self-supporting, nonreligious, not ugly woman with mature teenagers, interested in whole earth AT work/ travel; applauds Brand's "Uncommon Courtesy." Contact any three autumn days via Santa Rosa, Calif's Press Democrat Personals. I'll wait.

HAPPY HERMIT, 33, won't date, misses sex. Invites woman to live on "new" 11 acre smoky mountain homestead; share cheap food, cheap shelter. I do computer consulting by phone, can teach. You should be young (18-40), attractive (obviously female), free thinking. Garden space, woods, music, video. Lee (615) 623-6450.

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RAILBIKE ENTHUSIAST seeks contact with rail riders. A railbike is a bicycle modified to ride on railroad tracks: lightweight, and fitted with high quality bicycle components. I am seeking contact with serious users to share experiences in human-powered rail riding. I wish to weave networks and disseminate collective experience. Jim Burgel, Winter '75 CQ, where are you? Charles Chesney, 5285 SW Watenpaugh, Corvallis, Oregon, 97333.

FOR SALE OR TRADE: 30 secluded acres in the Missouri Ozarks. We've lived on and loved this steep pine and oak woodland for the last 5 years but are now ready to move back home. Owner-built 2-bedroom home in hollow with large screen porch for summer sleeping comfort, spring water ram pumped into house, electric and phone. One-eighth mile walk from garage on top to home in the hollow; two good year-round springs, organic garden with asparagus and raspberries, octagonal chicken house, 5 acres pasture. $30,000 with $10,000 down and owner financing at 10%. Would trade for house in or near Eugene or Medford, Oregon. Larry Buffam, Rt. 1 Box 149, Willow Springs, Missouri 65793.

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EARTHTONES. Cello music by Judiyaba. #1 in a series of improvisational cassettes. Send $8 to Judiyaba, 1211 Dartmouth, Albany, Calif. 94706.

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BLESSINGS TO ALL MY Rainbow Brothers and Sisters everywhere. joseph yates.

RFD, A Country Journal for Gay Men Everywhere, begins its ninth year of exploring rural and alternative lifestyles and culture for gay men with a feature on erotica. Future features include collective living in city and country, practical self-sufficiency skills. One year (4 issues) — $8.50 ($14.00 — first class mail and outside US). Sample copy — $3.00. RFD, Rt. 1, Box 127-E, Bakersville, NC 28705.

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FRANK OLINSKY

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DEAR CQ, KEEP UP THE GOOD work. Hope some day your often admirable openness extends to us at the "turncoat harlot." Pat Stone at The Mother Earth News.

SIALBACH GUIDESHEETS AND services. 1) Lengthy analysis of your handwriting. Send two pages (preferably written previously), unlined paper only. Receive, in addition, free self-analysis handbook based on intelligible symbolic explanation of how muscular movement translates speed, pressure, direction, size into personality traits. $20. 2) Learn free-lance copyediting—professionally prepared examples with four two-page tests and answers. $10 3) Get Your Book Manuscript to the Right Publisher—practical, timesaving advice, methods, bibliography. $5. Sialbach Consultants, P.O. Box C122, Gardiner, NY 12525.

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WHAT'S IMPORTANT?—Independence, optimism, endless possibilities, health, fitness, nature, outdoor activities, laughter, Passions of the senses, intellect, and emotions—imagination, resourcefulness, life as adventure, learning from and with others, reasoning, fairness, honesty, sharing life's wonders with a child, being close to a special person. If you're a slender, attractive woman 20's to early 30's and sense that we may be of kindred nature, please be a little adventurous and get in touch. I'll respond. Geography initially unimportant. I'm 6'0", 35 (am told I look 25), ex-teacher planning to begin my own business. Richard, 4741 W Ave M-12, Lancaster, CA 93534.

PRO ORGANIZER TO STRAIGHTEN out your home or office. Diana Kirchhoff (415) 621-4954.

ENDANGERED RIVERS NOTE Cards: Seven different b&w, 4½x5½" cards with envelopes for $3.50 + $1 postage. One half purchase price goes directly to benefit November's Prop. 13 Water Resources Initiative, Friends of the River, and the cause of unfettered rivers. Ty Childress, Rt. 1, Box 52-B10, Mokelumne Hill, CA 95245.

HONEY—pure, uncooked varieties from wildflower and unsprayed cultivated sources throughout California. Packaged in cases of 1, 2, 3, (quart), 5, 12 (gallon), and 60 pound containers. Reasonable priced. Direct from beekeeper to your co-op, living group, institute, retail outlet, restaurant, baker, or farmers'/flea market entrepreneur. Free delivery throughout SF Bay Area. Coxcomb Honey Co., 409 No. Jefferson, Cloverdale, CA 95425—(707) 894-3098.

NIKOLA TESLA'S Autobiography, "My Inventions," is in reprint! Virtually unavailable in America since its serialization in 1919, "My Inventions" is essential reading for all students of the inventor's mysterious life and amazing career. Hart Brothers' new 111 page edition, reset and unabridged, includes all 17 original illustrations, plus 6 new illustrations and an important introduction by Tesla biographer Ben Johnston. Fans of CQ's electrifying 1977 Tesla profile will find the psychological detail of "My Inventions" a revelation. Other readers, unfamiliar with Tesla or uncomfortable with the aura of sensationalism and cult worship surrounding him, will find his own first-hand testimony and Ben Johnston's careful navigation through the maze of Tesla myths invaluable. Now, after decades of confusion created by biographers who have pirated, misquoted, and/or misconstrued "My Inventions," readers can finally learn the truth about Tesla's "prevision" of his mother's death! CQ subscribers are invited to puzzle out Tesla for themselves with the primary original source, and then compare results with Ben Johnston's exhaustively-researched new biography "And In Creating, Live," when it comes off the press in early 1983! "My Inventions" is $7.95 in 5½x8½ paperback, ($12.95 hardcover) postpaid, from Hart Brothers Publishing, PO Box 205, Williston, VT 05495. (Vermonters: add 4% tax.)

A PLETHORA OF T-SHIRTS! Vegetables, Dragon, Dinosaurs, Whooping Crane, Born At Home etc. Adults $7, Children and infants $5. Jazz designs on heavy weight shirts, $8: Charlie Parker, Mingus, Coltrane, Dolphy, Duke, Monk, Billie Holiday (specify men's or women's shirt), Dizzy, Count Basie, Powell, Dexter Gordon, "Bebop Lives." All shirts 100% cotton. In cooperation with Inky Fingers. Send stamped envelope for flyer. Bird Lives, P.O. Box 87F, New Lisbon, WI 53950.

AFTER LIVING 4 YEARS in the No. Cal. mountains in redwood and canvas yurts and in tipis, we are building yurts and tipis for other folks.
Adapted from the Mongolian traditional structure, our yurts use no center ring or roof poles, but rather a beautiful self-supporting all lattice design. Yurts & tipis are sewn from marine treated canvas.
We are also handcrafting Japanese traditional "Kotatsu"—a low table and quilt (with protective table top) covering a charcoal or electric heat source. You and your friends sit under the quilt and enjoy being warm without heating your whole room. Please send $1.00 and SASE for further information to: Anne Schein, P.O. Box 968, Upper Lake, CA, 95485.

THE FILM-MAKERS WHO SHOT "Return of the Secaucus 7" are ready to do another "low-budget miracle." John Sayles's "Secaucus" was judged 1 of 1980's ten best by TIME, The Los Angeles Times, & The Boston Globe. We shot it for $70,000—not enough to pay for 1 minute of a Hollywood feature. How? Ingenuity, co-operation and 15 years experience.
If you have an outstanding film property and assured access to funding, we'd like to hear about it. Please describe your dramatic or documentary project in a treatment or script. Include outline of financing and distribution plans. Rick Cowan, Aydelott Associates P.O. Box 953, Marblehead, MA 01945.

INTERESTED IN NEW ZEALAND—Trying to survive Nuclear War there—perhaps joining others in an intentional living arrangement. Do you know of something better? Please respond. Dean Ware, Rt. 4, Box 243-A, Waynesboro, TN 38485.

IF YOU'RE A SMALL BUSINESS person (either alone or in partnership) in the Bay Area and are searching for ways to improve your business, especially the financial aspects, you and I should be talking. I've done it well for others. My rates are reasonable and I always respect my client's privacy. Call Malcolm Ponder (415) 868-1854.

MULTIPLE SCLEROSIS—I have a severe case and have been looking for a way to cure or control or cope with it for ten years. I would be very grateful for any information that might help me to find my answer(s). I've tried lot of "alternative" routes—currently megavitamins, macrobiotics, exercise, meditation, etc. I would be very grateful to hear from or about anyone with a severe case (multiple exacerbations) who has been able to turn it around. John O'Neil, Box 182, Johnson Hill Rd., Bradford, N.H. 03221.

"THE SPIRIT OF ELVIS PRESLEY Diffuses Into the Universe," a poem by Richard Dean. Send $1.50 and stamp to R. Dean, 74 South Sherman, Denver, CO 80209.

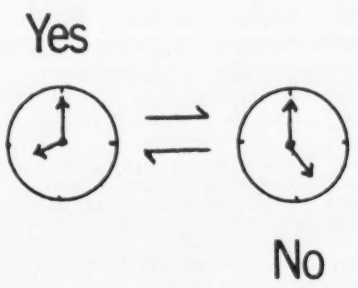
ART BUYERS WANTED: Large selection of genuine, original Art for sale by Artist: various editions of or individual handscreened prints, similar to work which appeared in Place, New World Journal, CQ and elsewhere. Also immense paintings, often aerial desert landscapes but tending later to post-modernist angstinfested cityscapes, lots of lovely drawings, watercolors, and works on paper. Prices range from $35-$3500 with lots of stops in between. Michael S. Moore, en transito until sometime in October, then c/o D. Rumsey, 504 Cole Street, San Francisco, California, 94117. (Michael Moore illustrated "Great Uncle Jim" in CQ 33)

"YOU ONLY GET ONE MOTHER" T-Shirt. Sweet Earth on black or dark colored T. of 100% cotton. $6.00. Inky Fingers, Rt. 1 Box 85, New Lisbon, Wisc., 53950. We do custom design silk-screened T-shirts. Send for a brochure.

FLAG DESIGN/CONSULTATION. Ardgay Flag Svce. c/o Phil Allen: 2229 8th St./D, Berkeley 94710.

NEED BACK ISSUES CQ. No. 1, 6, 7, 8 in good to mint condition. E. Sweeney, 4006 Brookdale Ave., Oakland, CA. 94619.

SEQUENCING: AM I CRAZY?



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I'M LOOKING FOR A MAN WHO really wants to be a father. Because I really want to be a mother. And I don't have time to look slowly and wait for the perfect mate who also wants children. I'm 40 (but fit!)
Since it's my intention to separate this parenting from a coupling-romantic relationship, self-insemination will be used instead of The Usual.
Also, I'm not just interested in sperm. Sorry, fellas, but your buddies pass it out rather freely, so it's not the valuable commodity you might think. Reread the first sentence.
So,... if you live in the San Francisco Bay Area, have time and other resources, and want to be someone's dad—let me know.
I'd also like to hear from women who think this is a good idea and/or have done anything like it. MOM, P.O. Box 151 (Vista Grande Station!), Daly City, Ca. 94014.

MAUI, HAWAII HOUSE EXCHANGE: 3-4 wks. ASAP. 3 bedroom, comfortable family home. 3 minute walk to beautiful beaches. For your home in or near N.Y.C. or ??? Barry & Stella Rivers. P.O. Box 486, Paia, Hi. 96779 808-579-9050.

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HARD-TO-FIND RECORDS—The finest selection of specialized music on record in the country: blues, folk, ethnic, and much much more. Recommended in The Next Whole Earth Catalog. Send three 20 cent stamps for samples of our literature. Down Home Music (CQ), 10341 San Pablo Ave., El Cerrito CA 94530.

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NEVADA COUNTY real estate—if you intend to buy here, do select carefully. Considering the possible/probable long-range economic future (a la Hawken and others), you might

do well to take some time and get familiar with any area in which you wish to invest/homestead/escape/retire/live. I specialize in Nevada City and surrounding bioregions and can assist you—with your long-range best interest at heart. I am licensed and will trade for consultation. Call me at 916-265-6830 or write Rick Ramirez, 418 Nimrod St., Nevada City, CA, 95959 to discuss further. "Buy land—they're not making any more of it." —Mark Twain.

1984 TOURING NEW AGE MUSIC Festival—producer seeks backers, local presenters, miscellaneous ideas for project to expand outreach of recent and 21st century music. Aaron M. Cohen, P.O. Box 963, East Quogue, NY 11942.

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PACIFIST WRITER, sweet, smart, single & sensible, invites correspondence & company of educated outdoorsman, 35-50, for taking time out from seriousness and saving the world to go have some fun. Photos exchanged. "Sierra," Box 15, CA 95714

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MD NEEDED TO SHARE MY leisurely general practice in the beautiful Annapolis Valley, Nova Scotia. Emphasis on taking time and listening to people. Rotating internship and FLEX or LMCC required. Flexible schedule, 4 day workweek. Excellent referral services, sign-out system at nearby hospitals. Two or three on call days a month. This is a rural farming, fishing and university area 65 miles from Halifax. Obstetrics an asset, optional. Dr. Valeria Goldin, Box 4, Canning, Nova Scotia, Canada, B0P 1H0.

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JOHN TODD'S NEWEST BIOTECHnical ideas on improving cities & towns outlined in "Reinhabiting Cities & Towns: Designing for Sustainability." Along with it come two bioregion design booklets by Berg & Tukel. Package of 3 from: The Company of Stewards, Shanks Pond Rd., Falmouth, MA 02540. Price $10.00 including postage.

LIVING FREE newsletter. Forum for debate among freedom-seekers, homesteaders, survivalists, libertarians, anarchists, outlaws. Lively, unique. $7.00 for 6 issues, sample $1.00. Box 29-CQ, Hiler Branch, Buffalo, NY 14223.

I AM INTERESTED IN CONTACTING folks who read CoEvolution and are interested in any of following: 1. Grateful Dead (and live concert tapes), 2. Computers (and computer adventure games), 3. Dentistry; holistic concepts, 4. Weird ideas, 5. Smiling. Bernie Bildman, 449 Huffman Rd., Birmingham, AL 35215.

NITWITS, DOPES, creeps, nerds, fools, and bores (particularly bores) are the subjects of a book I'm preparing, and since I have none of their qualities it's hard for me to be tolerant in dealing with all the material I'm amassing. Be that as it may, however, I still need many more examples of the daily dumbness we all encounter. I can't pay for your contribution but I'll gladly identify you as its author. Malcolm Wells, Box 1149, Brewster, MA 02631.

RENAISSANCE WOODWORKS—handmade furniture—Japanese inspired knockdown joinery—evolving total residential architectural-building service to assist owner builders—rammed earth housing w/ solar capability. Route 13 Box 293, Brazil, IN 47834

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STARTING A SMALL RESTAURANT is "a unique and tough hands-on guide to doing it. No other comparable book exists" (Next Whole Earth Catalog). Send $8.95 plus $1.50 postage to Harvard Common Press, P.O. Box 355-CQ, Harvard, MA 01451.

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IF YOU'RE A FAN of blues, bluegrass, English, Irish, reggae, jazz, folk, western swing, world musics and more, you'll be glad to know that we are the source of hundreds of independent record labels, both domestic and imported. Our same-day service is personal and efficient, and our prices extremely competitive. Looking for that hard-to-find record no one in the record stores has heard of? Why not send for our free 64-page catalog and bi-monthly update? Real music lives! Roundup Records, P.O. Box 147 Dept. CO, E. Cambridge, MA 02141.

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A GIFT OF ANTICIPATION: Advent calendar (non-denominational). 25 forest niches open revealing hand-painted local wildlife. (I made it for my kids; it's nice.) I will add your short personal message. Print it clearly. 8½" x 11". $6.00 postpaid. Calendar. Box 1162, Cambria, Ca. 93428.

WOMEN IN MUSIC — I am working on an article on women in the music biz on the punk/new wave circuit, but am interested in stories by any women who have encountered roadblocks in the pro rock'n'roll world due to being women and/or lesbians. Please contact Annette at CQ. Confidentiality promised if you're concerned it might hurt your career.

STRING INSTRUMENT MAKERS and lovers: join our information sharing system! Our Quarterly magazine and Data Sheets constitute America's only publication exclusively for, by, and about luthiers (string instrument makers and repairers). Data Sheet books are packed with practical information. Yearly membership: $25. For details: Guild of American Luthiers, 8222 Park, Tacoma, WA 98408

INDIAN RUNNING by Peter Nabokov. Based on a CQ cover story, a fascinating account of the history and cultural significance of running among American Indians set against the backdrop of the 1980 Tricentennial Run. "An impressive and enjoyable answer to anyone still believing that the children of the post-World War II baby boom somehow discovered the 'spiritual' side of running," ("Running"). "Recommended," ("Library Journal"). $10.95 from Capra Press, POB 2068-10, Santa Barbara, CA 93120. CA residents add 6% sales tax.

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Illustrated T-shirts. "The sky starts at at your feet. Think how brave you are to walk around." Running shoes standing on clouds, purple and white on royal blue. "Thinking the world should entertain you leads to boredom and sloth. Thinking you should entertain the world leads to odd graffiti, bright colored clothes, and amazing grace in running for the bus." With the dancing figures seen in CoEvolution, Issue 32, page 4. Black on red. Small, medium, large, extra large. Send $8 for each t-shirt to Rising Sun, Box 428, Sausalito, CA 94966. Produced and sold by Kathleen O'Neill and Anne Herbert.

SHIITAKE GARDENING by Bob Harris. $3.00. Explains in easy to understand terms how the home gardener can grow black tree mushrooms in the backyard on logs. Shiitake plug spawn (300-400 plugs=20-40 logs.) $15.00. Mushroompeople, P.O. Box 158C, Inverness, CA 94937. Write for free catalogue.

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CANDLE MAKING SUPPLIES. Catalog: $1.00 refundable. Pourette, P.O. Box 15220, Dept. WEC, Seattle, Wash. 98115.

SURVIVAL KIT FOR THE 80s-Give it to a friend in distress. Contains: 1 tin cup printed with Reaganomics in red, white, and blue; three pencils, and an explanation booklet. Kits are $5.00 each plus $1.50 shipping. Send check or money order to Paramail Dept. 101, P.O. Box 15457, SLC, UT 84115.

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THE LINDISFARNE ASSOCIATION announces the fall '82 issue of its journal, Lindisfarne Letter 13: Celtic Christianity. Corresponding Members receive a free subscription to the journal, plus discounts on tapes, books and back issues from the Lindisfarne Press. Send $35, tax-deductible, for Membership to The Lindisfarne Press, RD 2, W. Stockbridge MA 01266, or simply write for catalogue and information.

WENDELL BERRY ESSAY, "Standing By Words," on agriculture, culture and language. Send $3.75 to The Lindisfarne Press, R.D. 2, W. Stockbridge MA 01266.

THE BUCKMINSTER FULLER Institute, a non-profit corporation, announces its first event: "Options for Humanity: A Weekend Seminar" in Spring, 1983. Write to the Institute, 3501 Market Street, Philadelphia, PA 19104 for more information and free catalog.

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AUTO FUELS OF THE 1980s—$3.95 (paperback). "Share Our Wealth," Huey Long (1934)—$2.00. Both—$5, plus 63 cents postage. Solar Age Press, Indian Mills, W. VA. 24949.

FIRST TIME OFFER! Ionize your environment and enjoy the relief of clean, fresh air with Amcor's Modulion PR ($64.95) and their new Modulion 10 Pyramid Shaped Model ($89.95). Write for literature and order forms: TDS-Raritan Center-PO Box 978, Edison, N.J. 08817.

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EARSCOPES (otoscopes) allow you to check the condition of ears at home. We have both human and animal models that shine a beam of light into the ear canal so that you can check its condition. Earscopes incorporate penlight, magnifying lens, condensing mirror and different sized human tips. Detailed handbook included. $18.45 postpaid from Nash & Associates, P.O. Box 300, Ferndale, CA 95536. Specify human or veterinarian model.

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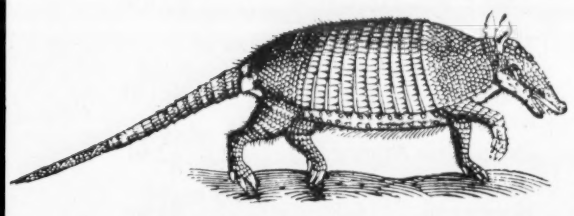
–Nancy E. Dunn



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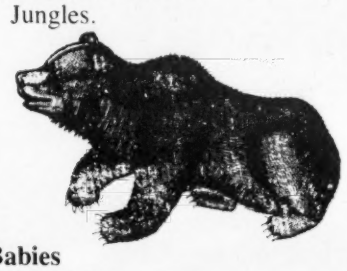

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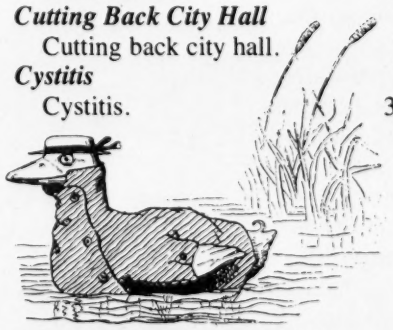

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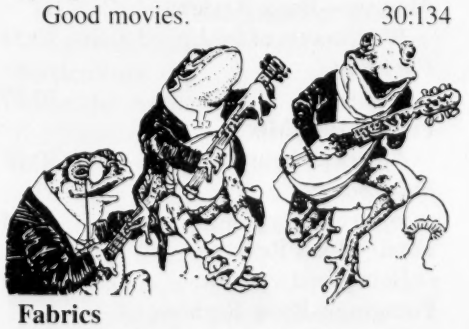

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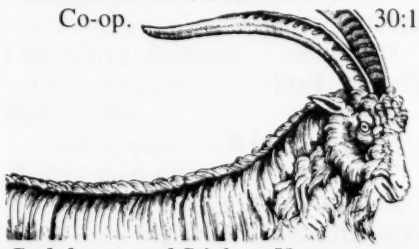

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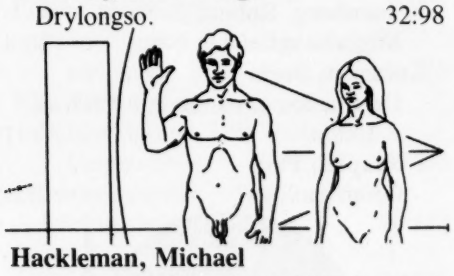

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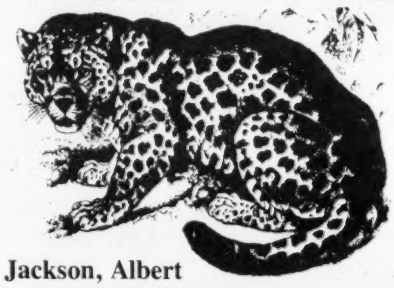

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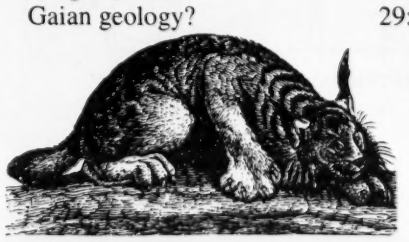

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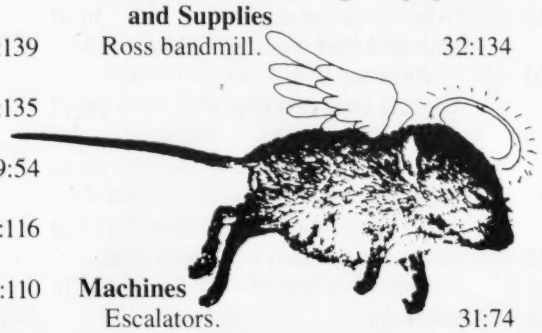

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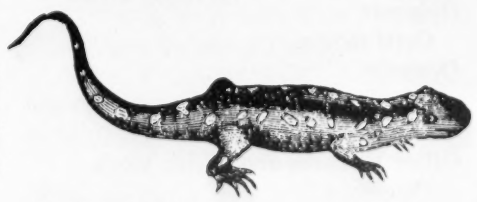

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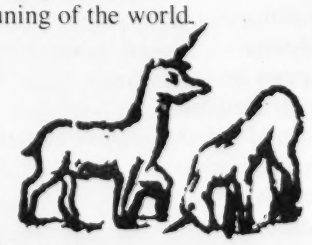

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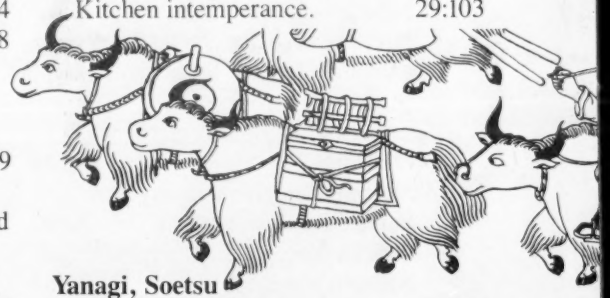

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—Don Ryan

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No. 33, Spring 1982. Articles on the nature of gender in our time, including a major piece by Ivan Illich. Also: nonfiction melodrama by Will Baker, Anne Herbert's **Rising Sun Neighborhood Newsletter**, Redefining the Police, and a précis of Paul Hawken (et al.)'s new book, **Seven Tomorrows**.

No. 32, Winter 1981. Guest edited by Peter Berg and Stephanie Mills. Bioregions Special. Articles on ecopolitical decentralism in the U.S., Europe, and Africa; a report on the forced relocation of thousands of Hopi and Navajo Indians; a chapter from Murray Bookchin's **Ecology of Freedom**; regional bibliographies; and contributions by Jan Morris, Gary Snyder, Molly Ivins, and Wes Jackson.

No. 31, Fall 1981. Paul Ehrlich warns social scientists to beware of "physics envy"; James Lovelock elaborates on his Gaia hypothesis. Also, tactics for halting the arms race, Ramon Sender Morningstar and Wavy Gravy on clowning, tree huggers protecting forests in north India and North America, a jogging fantasy, and two looks at the Himalayas.

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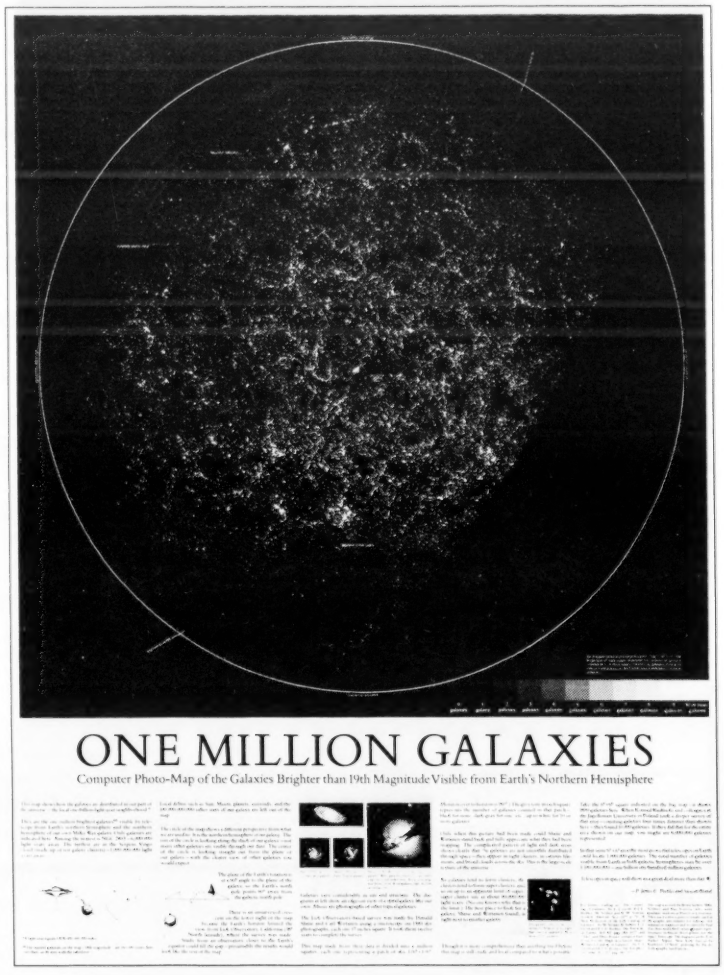

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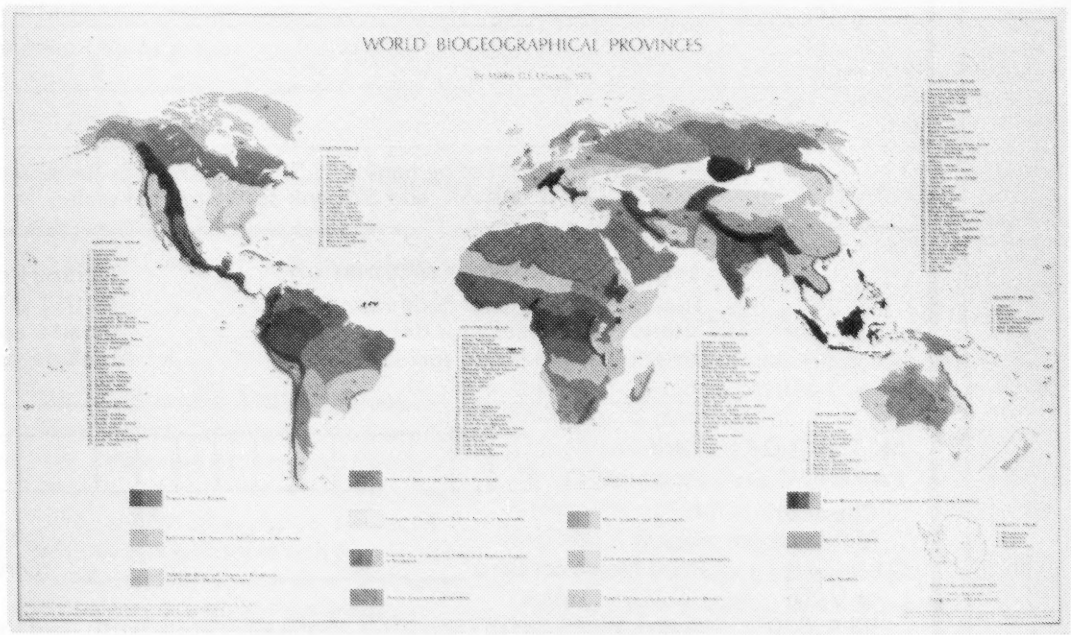

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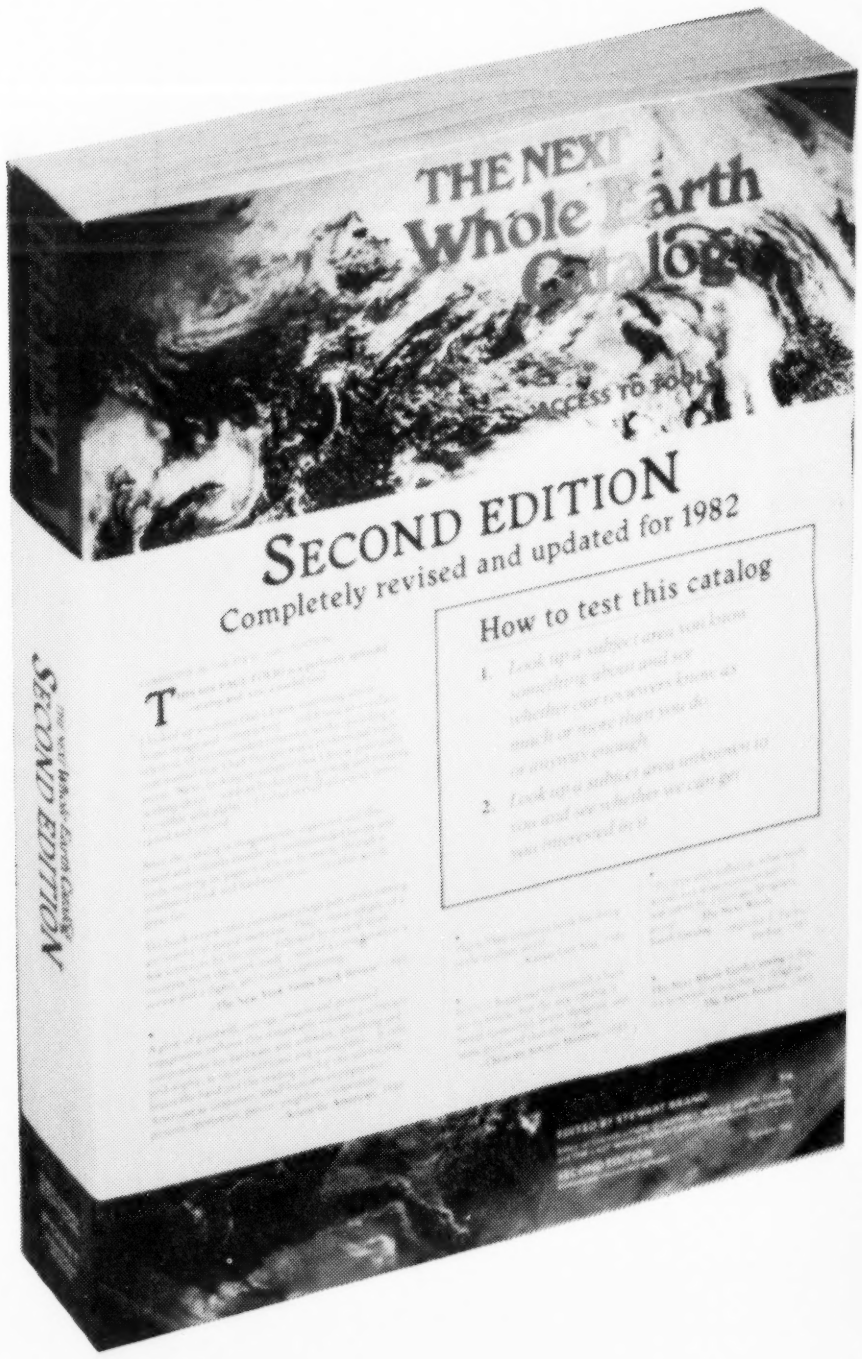

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—*Anne Herbert*

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—*Anne Herbert*

The Oak Beams of New College, Oxford

"New College, Oxford, is of rather late foundation, hence the name. It was probably founded around the late 16th century. It has, like other colleges, a great dining hall with big oak beams across the top, yes? These might be eighteen inches square, twenty feet long.

"Some five to ten years ago, so I am told, some busy entomologist went up into the roof of the dining hall with a penknife and poked at the beams and found that they were full of beetles. This was reported to the College Council, who met in some dismay, because where would they get beams of that caliber nowadays?

"One of the Junior Fellows stuck his neck out and suggested that there might be on College lands some oak. These colleges are endowed with pieces of land scattered across the country. So they called in the College Forester, who of course had not been near the college itself for some years, and asked him about oaks.

"And he pulled his forelock and said, 'Well sirs, we was wonderin' when you'd be askin'.'

"Upon further inquiry it was discovered that when the College was founded, a grove of oaks had been planted to replace the beams in the dining hall when they became beetly, because oak beams always become beetly in the end. This plan had been passed down from one Forester to the next for four hundred years. 'You don't cut them oaks. Them's for the College Hall.'

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